

<213> Homo sapiens

<220>

<221> CDS

<222> 103..312

<400> 2290

acagacctgc aaacatctat gggtgtgaca gagtttcttt ctgacacctg agtctttctc 60  
ctgctgcacg gaaagcttgc tgggaggggc ttggaatctg gc atg aag cca aag 114  
Met Lys Pro Lys  
1  
ggc atc tct gag ttg cag cat tta aat gat cyc act cag aga ttc aca 162  
Gly Ile Ser Glu Leu Gln His Leu Asn Asp Xaa Thr Gln Arg Phe Thr  
5 10 15 20  
cag aag wct gga cac aat tca gaa gag cca ccc aga agg aga caa caa 210  
Gln Lys Xaa Gly His Asn Ser Glu Glu Pro Pro Arg Arg Arg Gln Gln  
25 30 35  
tgt ccc tgc tac ccg tgc cat aca cag agg ctg cct ctt tgt cta ctg 258  
Cys Pro Cys Tyr Pro Cys His Thr Gln Arg Leu Pro Leu Cys Leu Leu  
40 45 50  
gtt ctw ack gtg aca atc aaa ggg cga cca ctt gtc tgt ttc ttg aat 306  
Val Leu Thr Val Thr Ile Lys Gly Arg Pro Leu Val Cys Phe Leu Asn  
55 60 65  
gaa cca t 313  
Glu Pro  
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<210> 2291

<211> 327

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 117..326

<400> 2291

gaaagactgg agccgtttcc ttgtggctgg agcgcttccc gtagcctcgg ggaaggagca 60  
ggatttagag gaccactagt tggacccma tcctcgtgct ggaggaacag gagttc atg 119  
Met  
1  
gcc tcc ttg atg ccc agc ctc cta cat tct aga tgt cca gag gct cca 167  
Ala Ser Leu Met Pro Ser Leu Leu His Ser Arg Cys Pro Glu Ala Pro  
5 10 15  
ggc agg gcc agc ttc atg gaa ata caa aac tgc aac cgc aca ggg cct 215  
Gly Arg Ala Ser Phe Met Glu Ile Gln Asn Cys Asn Arg Thr Gly Pro  
20 25 30  
tgc act tgg aag ggc cct gca ttt ggt aat gtt ctg cta tca ccg tct 263  
Cys Thr Trp Lys Gly Pro Ala Phe Gly Asn Val Leu Leu Ser Pro Ser  
35 40 45  
gct ggc tta ata att ttc aaa gag gct ctg gat ctt cat ttt gac tgg 311  
Ala Gly Leu Ile Ile Phe Lys Glu Ala Leu Asp Leu His Phe Asp Trp



004220" 6667560

tct gtg tgg tct gga ggt gga gct gag agg gga atc aca ctc tat aaa	162
Ser Val Trp Ser Gly Gly Gly Ala Glu Arg Gly Ile Thr Leu Tyr Lys	
10 15 20 25	
ggg cca gcc aag tct cgg gat ggt gaa cgt act gtc tat tgc aac gta	210
Gly Pro Ala Lys Ser Arg Asp Gly Glu Arg Thr Val Tyr Cys Asn Val	
30 35 40	
cac aag cat gaa ccc ctt gtg ctg ttt tgt gag agc tgt gat act ctc	258
His Lys His Glu Pro Leu Val Leu Phe Cys Glu Ser Cys Asp Thr Leu	
45 50 55	
acc tgc cga gac tgc cag ctc aat gcc cac aag gac cac cag tac cag	306
Thr Cys Arg Asp Cys Gln Leu Asn Ala His Lys Asp His Gln Tyr Gln	
60 65 70	
ttc tta gag gat gca gtg agg aac cag cgc ast cct ggc ctc act ggt	354
Phe Leu Glu Asp Ala Val Arg Asn Gln Arg Xaa Pro Gly Leu Thr Gly	
75 80 85	
gaa gcg cct tgg gga caa cat gca aca ttg cag aag agc aca agg aag t	403
Glu Ala Pro Trp Gly Gln His Ala Thr Leu Gln Lys Ser Thr Arg Lys	
90 95 100 105	

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Met Glu Glu Met Ser Gly	
1 5	
gaa agt gtg gtg agc tca gcg gtg cca gcg gct gct acc cgc acc act	104
Glu Ser Val Val Ser Ser Ala Val Pro Ala Ala Ala Thr Arg Thr Thr	
10 15 20	
tcc ttc aag ggc acg agc ccc agc tcc aaa tac gtg aag ctg aat gtg	152
Ser Phe Lys Gly Thr Ser Pro Ser Ser Lys Tyr Val Lys Leu Asn Val	
25 30 35	
ggt gga gcc ctc tac tat acc acc atg cag acg ctg acc aag cag gac	200
Gly Gly Ala Leu Tyr Tyr Thr Thr Met Gln Thr Leu Thr Lys Gln Asp	
40 45 50	
acc atg ctg aag gcc atg ttc agc ggg cgc awn saa gtg c	240
Thr Met Leu Lys Ala Met Phe Ser Gly Arg Xaa Xaa Val	
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 <213> Homo sapiens

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 <222> 166..441

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 gcgaccggcg cgtcgtgcgg ggctgcggcg gacctcctta aggaagggtgc aagaggttgg 120  
 cagcttcgat tgaagcacat cgaccggcga cagcagccag gagtc atg agc gac agc 177  
 Met Ser Asp Ser

1  
 grc gag cag aac tac ggc gag cgg gaa tcc cgt tct gct tcc aga agt 225  
 Xaa Glu Gln Asn Tyr Gly Glu Arg Glu Ser Arg Ser Ala Ser Arg Ser  
 5 10 15 20  
 gga agt gct cac gga tcg ggg aaa tct gca agg cat acc cct gca agg 273  
 Gly Ser Ala His Gly Ser Gly Lys Ser Ala Arg His Thr Pro Ala Arg  
 25 30 35  
 tct cgc tcc aag gaa gat tcc agg cgt tcc aga tca aag tcc agg tcc 321  
 Ser Arg Ser Lys Glu Asp Ser Arg Arg Ser Arg Ser Lys Ser Arg Ser  
 40 45 50  
 cga tct gaa tct agg tct aga tcc aga aga agc tcc cga agc att ata 369  
 Arg Ser Glu Ser Arg Ser Arg Ser Arg Arg Ser Ser Arg Ser Ile Ile  
 55 60 65  
 ccc ggt cac ggt ctc gct ccc gct ccc ata grc gat cac gta gca ggt 417  
 Pro Gly His Gly Leu Ala Pro Ala Pro Ile Xaa Asp His Val Ala Gly  
 70 75 80  
 ctt aca gtc gag att atc gta gac g 442  
 Leu Thr Val Glu Ile Ile Val Asp  
 85 90

&lt;210&gt; 2296

&lt;211&gt; 456

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 48..455

&lt;400&gt; 2296

gcttcctggk tgcgggtcag cgcccaggtc ctgggctggc cgccggg atg tkg ccc 56  
 Met Xaa Pro  
 1  
 tac aca gtg aac ttc aag gtg tcg gcg cgc acc ctc acg ggg gcc ctc 104  
 Tyr Thr Val Asn Phe Lys Val Ser Ala Arg Thr Leu Thr Gly Ala Leu  
 5 10 15  
 aac gcc cac aac aag gcg gcg gtg gac tgg ggc tgg caa ggt tta att 152  
 Asn Ala His Asn Lys Ala Ala Val Asp Trp Gly Trp Gln Gly Leu Ile  
 20 25 30 35  
 gct tat gga tgt cat tca ctt gtg gta gtg att gat tcc att act gcc 200  
 Ala Tyr Gly Cys His Ser Leu Val Val Ile Asp Ser Ile Thr Ala  
 40 45 50  
 caa act ctt caa gtt tta gaa aag cat aaa gct gat gtt gta aag gtt 248  
 Gln Thr Leu Gln Val Leu Glu Lys His Lys Ala Asp Val Val Lys Val  
 55 60 65  
 aaa tgg gcc agg gaa aac tat cac cat aac att ggc tca cca tat tgc 296



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Lys Trp Ala Arg Glu Asn Tyr His His Asn Ile Gly Ser Pro Tyr Cys
      70              75              80
tta cgg tta gct tct gct gat gtc aat ggg aag atc atc gtc tgg gat      344
Leu Arg Leu Ala Ser Ala Asp Val Asn Gly Lys Ile Ile Val Trp Asp
      85              90              95
gta gca gca gga gta gct cag tgt gag atc caa gag cat gcc aag cct      392
Val Ala Ala Gly Val Ala Gln Cys Glu Ile Gln Glu His Ala Lys Pro
100              105              110              115
atc cag gat gtt cag tgg ttg tgg aat caa gat gct tcc cgc gat tta      440
Ile Gln Asp Val Gln Trp Leu Trp Asn Gln Asp Ala Ser Arg Asp Leu
      120              125              130
ctg ctt gct atc cac c
Leu Leu Ala Ile His
      135
456

<210> 2297
<211> 459
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 61..459

<400> 2297
gaggaggags ttgccttagc ttgcaggcag cgcagggcag acggcggcag gagaagcaag      60
atg aat gca ggc tca gat cct gtg gtc atc gtc tgc gcg gcg cgg acc      108
Met Asn Ala Gly Ser Asp Pro Val Val Ile Val Ser Ala Ala Arg Thr
1              5              10              15
atc ata ggt tcc ttc aat ggt gcc tta gct gct gtt cct gtc cag gac      156
Ile Ile Gly Ser Phe Asn Gly Ala Leu Ala Ala Val Pro Val Gln Asp
      20              25              30
ctg ggc tcc act gtc atc aaa gaa gtc ttg aag agg gcc act gtg gct      204
Leu Gly Ser Thr Val Ile Lys Glu Val Leu Lys Arg Ala Thr Val Ala
      35              40              45
ccg gaa gat gtg tct gag gtc atc ttt gga cat gtc ttg gca gca ggc      252
Pro Glu Asp Val Ser Glu Val Ile Phe Gly His Val Leu Ala Ala Gly
      50              55              60
tgt ggg cag aat cct gtt aga caa gcc agt gtg ggt gca gga att ccc      300
Cys Gly Gln Asn Pro Val Arg Gln Ala Ser Val Gly Ala Gly Ile Pro
65              70              75              80
tac tct gtt cca gca tgg agc tgc cag atg atc tgt ggg tca ggc cta      348
Tyr Ser Val Pro Ala Trp Ser Cys Gln Met Ile Cys Gly Ser Gly Leu
      85              90              95
aaa gct gtg tgc ctt gca gtc cag tca ata ggg ata gga gac tcc agc      396
Lys Ala Val Cys Leu Ala Val Gln Ser Ile Gly Ile Gly Asp Ser Ser
      100              105              110
att gtg gtt gca gga ggc atg gaa aat atg agc aag gct cct cac ttg      444
Ile Val Val Ala Gly Gly Met Glu Asn Met Ser Lys Ala Pro His Leu
      115              120              125
gct tac ttg aga aca
Ala Tyr Leu Arg Thr
      130
459

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<210> 2298  
 <211> 333  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 77..331

<400> 2298  
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 tctggacacc acgaag atg cca ccc gtt ggg ggc aaa aag gcc aag aag ggc 112  
 Met Pro Pro Val Gly Gly Lys Lys Ala Lys Lys Gly  
 1 5 10  
 atc cta gaa cgt tta aat gct gga gag att gtg att gga gat gga ggg 160  
 Ile Leu Glu Arg Leu Asn Ala Gly Glu Ile Val Ile Gly Asp Gly Gly  
 15 20 25  
 ttt gtc ttt gca ctg gag aag agg ggc tac gta aag gca gga ccc tgg 208  
 Phe Val Phe Ala Leu Glu Lys Arg Gly Tyr Val Lys Ala Gly Pro Trp  
 30 35 40  
 act cct gaa gct gct gtg gag cac cca gaa gca gtt cgc cag ctt cat 256  
 Thr Pro Glu Ala Ala Val Glu His Pro Glu Ala Val Arg Gln Leu His  
 45 50 55 60  
 cga gag ttc ctc aga gct ggc tca aac gtc atg cag acc ttc acc ttc 304  
 Arg Glu Phe Leu Arg Ala Gly Ser Asn Val Met Gln Thr Phe Thr Phe  
 65 70 75  
 tat gcg agt gaa gac aag ctg gag aac ag 333  
 Tyr Ala Ser Glu Asp Lys Leu Glu Asn  
 80 85

<210> 2299  
 <211> 323  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 23..322

<400> 2299  
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 Met Ala Thr Glu Leu Glu Tyr Glu Ser Val  
 1 5 10  
 ctg tgt gtg aag cca gac gtc agc gtc tac cgg att ccg ccc cgg gcc 100  
 Leu Cys Val Lys Pro Asp Val Ser Val Tyr Arg Ile Pro Pro Arg Ala  
 15 20 25  
 tcc aac cgc ggt tac agg gcc tct gac tgg aaa tta gac cag cct gat 148  
 Ser Asn Arg Gly Tyr Arg Ala Ser Asp Trp Lys Leu Asp Gln Pro Asp  
 30 35 40  
 tgg act ggt cgc ctc cga atc act tca aaa ggg aag act gcc tat atc 196  
 Trp Thr Gly Arg Leu Arg Ile Thr Ser Lys Gly Lys Thr Ala Tyr Ile

0044220" 654400

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      45              50              55
aaa ctc gag gat aaa gtt tca ggg gag ctc ttt gct cag gca cca gta      244
Lys Leu Glu Asp Lys Val Ser Gly Glu Leu Phe Ala Gln Ala Pro Val
      60              65              70
grr caa tat cct ggt att gct gtg gag acg gtg aca gat tct agc cgc      292
Xaa Gln Tyr Pro Gly Ile Ala Val Glu Thr Val Thr Asp Ser Ser Arg
      75              80              85              90
tac ttt gta atc cgg atc cag gat ggt act g
Tyr Phe Val Ile Arg Ile Gln Asp Gly Thr      323
      95              100

<210> 2300
<211> 441
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 25..441

<400> 2300
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Met Ala Ala Pro Arg Val Phe Pro Leu
      1              5
tcc tgt gcg gtg cag cag tat gcc tgg ggg aag atg ggt tcc aac agc      99
Ser Cys Ala Val Gln Gln Tyr Ala Trp Gly Lys Met Gly Ser Asn Ser
      10              15              20              25
gaa gtg gcg cgg ctg ttg gcc agc agt gat cca ctg gcc cag atc gca      147
Glu Val Ala Arg Leu Leu Ala Ser Ser Asp Pro Leu Ala Gln Ile Ala
      30              35              40
gag gac aag cct tat gca gag ttg tgg atg ggg act cac ccc cga ggg      195
Glu Asp Lys Pro Tyr Ala Glu Leu Trp Met Gly Thr His Pro Arg Gly
      45              50              55
gat gcc aag atc ctt gac aac cgc atc tca cag aag acc cta agc cag      243
Asp Ala Lys Ile Leu Asp Asn Arg Ile Ser Gln Lys Thr Leu Ser Gln
      60              65              70
tgg att gct gag aac cag gac agc ttg ggc tca aag gtc aag gac acc      291
Trp Ile Ala Glu Asn Gln Asp Ser Leu Gly Ser Lys Val Lys Asp Thr
      75              80              85
ttt aat ggc aac ctg ccc ttc ctc ttc aaa gtg ctc tca gtt gaa aca      339
Phe Asn Gly Asn Leu Pro Phe Leu Phe Lys Val Leu Ser Val Glu Thr
      90              95              100              105
ccc ctg tcc atc cag cat cct cct gat ggt aca ggg gac agt gat agc      387
Pro Leu Ser Ile Gln His Pro Pro Asp Gly Thr Gly Asp Ser Asp Ser
      110              115              120
cag cac acc cac aac cca gac acc aat ccc tct gca acg tgg tgg cgt      435
Gln His Thr His Asn Pro Asp Thr Asn Pro Ser Ala Thr Trp Trp Arg
      125              130              135
gct ctt
Ala Leu      441

<210> 2301
<211> 260

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004220" 666E1550

<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 101..259

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aggaagctgg gtaggccctg aggggcctcg gtaagccatc atg acc asc cgg caa 115  
Met Thr Xaa Arg Gln  
1 5  
gcc acg aag gat ccc ctc ctc cgg ggt gta tct cct ayc cct agc aag 163  
Ala Thr Lys Asp Pro Leu Leu Arg Gly Val Ser Pro Xaa Pro Ser Lys  
10 15 20  
att ccg gta cgc tct cag aaa cgc acg cct ttc ccc act gtk aca tcg 211  
Ile Pro Val Arg Ser Gln Lys Arg Thr Pro Phe Pro Thr Val Thr Ser  
25 30 35  
tgc gcc gtg gac cag gag aac caa gat cca agg aga tgg gtg cag aaa c 260  
Cys Ala Val Asp Gln Glu Asn Gln Asp Pro Arg Arg Trp Val Gln Lys  
40 45 50

<210> 2302  
<211> 348  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 132..347

<400> 2302  
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ttctsacagc tggcggaag caagcgctt ttcgaaagcc agaggctcga gttacccttc 120  
ttaccaccgt c atg gca gtc cca ggt tgc aac aag gac agt gtc aga gca 170  
Met Ala Val Pro Gly Cys Asn Lys Asp Ser Val Arg Ala  
1 5 10  
ggc tgt aaa aaa tgt ggc tac cct ggt cac ctg act ttt gaa tgc cgc 218  
Gly Cys Lys Lys Cys Gly Tyr Pro Gly His Leu Thr Phe Glu Cys Arg  
15 20 25  
aat ttt ctc cga gta gac cct aaa agg gac ata gtt ttg gat gtc agc 266  
Asn Phe Leu Arg Val Asp Pro Lys Arg Asp Ile Val Leu Asp Val Ser  
30 35 40 45  
agt aca agt agt gaa gat agc gat gaa gag aat gaa gaa ctg aat aaa 314  
Ser Thr Ser Ser Glu Asp Ser Asp Glu Glu Asn Glu Glu Leu Asn Lys  
50 55 60  
ttg cag gca tta cag gaa aaa aga ata aat gaa g 348  
Leu Gln Ala Leu Gln Glu Lys Arg Ile Asn Glu  
65 70

<210> 2303  
<211> 284

<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 39..284

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Met Ala Phe Ser Gly Arg  
1 5  
gcg cgc ccc tgc att atc cca gag aac gaa gaa atc ccc cga gca gcc 104  
Ala Arg Pro Cys Ile Ile Pro Glu Asn Glu Glu Ile Pro Arg Ala Ala  
10 15 20  
ctt aac act gtc cac gag gcc aat ggg acc gag gac gag agg gct gtt 152  
Leu Asn Thr Val His Glu Ala Asn Gly Thr Glu Asp Glu Arg Ala Val  
25 30 35  
tcc aaa ctg cag cgc rgg cac agt gac gtg aaa gtc tac aag gag ttc 200  
Ser Lys Leu Gln Arg Xaa His Ser Asp Val Lys Val Tyr Lys Glu Phe  
40 45 50  
tgt gac ttt tat gcg aaa ttc aac atg gcc aac gcc ctg gcc agc gcc 248  
Cys Asp Phe Tyr Ala Lys Phe Asn Met Ala Asn Ala Leu Ala Ser Ala  
55 60 65 70  
act tgc gag cgc tgc aag ggc ggc ttt gcg ccc gct 284  
Thr Cys Glu Arg Cys Lys Gly Gly Phe Ala Pro Ala  
75 80

<210> 2304  
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<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 10..366

<400> 2304  
gaccccgaa atg gcg ctg ctg gcc gaa cac ttg ctg aag ccg ctg ccc gcg 51  
Met Ala Leu Leu Ala Glu His Leu Leu Lys Pro Leu Pro Ala  
1 5 10  
gac aag cag atc gag acc ggg ccc ttc ctc gag gcg gtg tcc cac ctg 99  
Asp Lys Gln Ile Glu Thr Gly Pro Phe Leu Glu Ala Val Ser His Leu  
15 20 25 30  
ccg ccc ttc ttc gat tgc ctt ggg tcc cca gtg ttt act ccc atc aag 147  
Pro Pro Phe Phe Asp Cys Leu Gly Ser Pro Val Phe Thr Pro Ile Lys  
35 40 45  
gca gac ata agc ggc aac atc acg aaa atc ana gct gtg tac gac acc 195  
Ala Asp Ile Ser Gly Asn Ile Thr Lys Ile Xaa Ala Val Tyr Asp Thr  
50 55 60  
aac cca gcc aag ttc cgg acc ctg cag aac atc ctg gag gtg gag aaa 243  
Asn Pro Ala Lys Phe Arg Thr Leu Gln Asn Ile Leu Glu Val Glu Lys  
65 70 75

004220.666755

gaa atg tat gga gca gag tgg ccc aaa gta ggg gcc aca ctg gcg ctg 291  
 Glu Met Tyr Gly Ala Glu Trp Pro Lys Val Gly Ala Thr Leu Ala Leu  
 80 85 90  
 atg tgg ctg aaa aga ggc ctc cgc ttc atc cag gtc ttc ctc cag agc 339  
 Met Trp Leu Lys Arg Gly Leu Arg Phe Ile Gln Val Phe Leu Gln Ser  
 95 100 105 110  
 atc tgc gac ggg gar cgg gac gag aac c 367  
 Ile Cys Asp Gly Glu Arg Asp Glu Asn  
 115

<210> 2305  
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 <212> DNA  
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<220>  
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 <222> 77..301

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 tgcgtccggt gcggcg atg ctg acc ccg gcg ttc gac ctc agc cag gat ccg 112  
 Met Leu Thr Pro Ala Phe Asp Leu Ser Gln Asp Pro  
 1 5 10  
 gac ttc ctg act atc gcc atc cgc gtg ccc tac gcn cgg gtc tcc gag 160  
 Asp Phe Leu Thr Ile Ala Ile Arg Val Pro Tyr Ala Arg Val Ser Glu  
 15 20 25  
 ttc gac gtc tac ttc gag ggg tct gac ttc aag ttc tac gcc aag cca 208  
 Phe Asp Val Tyr Phe Glu Gly Ser Asp Phe Lys Phe Tyr Ala Lys Pro  
 30 35 40  
 tac ttt ctc aga tta acc ctt cct gga aga att gta gaa aat gga agt 256  
 Tyr Phe Leu Arg Leu Thr Leu Pro Gly Arg Ile Val Glu Asn Gly Ser  
 45 50 55 60  
 gag caa ggg tcc tat gat gca gat aaa gga att ttt acc att cgc cc 303  
 Glu Gln Gly Ser Tyr Asp Ala Asp Lys Gly Ile Phe Thr Ile Arg  
 65 70 75

<210> 2306  
 <211> 412  
 <212> DNA  
 <213> Homo sapiens

<220>  
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 <222> 139..411

<400> 2306  
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 ctgcacgcgc cgtggctccg gatctcttcg tctttgcagc gtasccgagt cggtcagcgc 120  
 cggaggacct cagcagcc atg tcg aag ccc cat agt gaa gcc ggg act gcc 171  
 Met Ser Lys Pro His Ser Glu Ala Gly Thr Ala  
 1 5 10

ttc att cag acc cag cag ctg cac gca gcc atg gct gac aca ttc ctg	219
Phe Ile Gln Thr Gln Gln Leu His Ala Ala Met Ala Asp Thr Phe Leu	
15 20 25	
gag cac atg tgc cgc ctg gac att gat tca cca ccc atc aca gcc cgg	267
Glu His Met Cys Arg Leu Asp Ile Asp Ser Pro Pro Ile Thr Ala Arg	
30 35 40	
aac act ggc atc atc tgt acc att ggc cca gct tcc cga tca gtg gag	315
Asn Thr Gly Ile Ile Cys Thr Ile Gly Pro Ala Ser Arg Ser Val Glu	
45 50 55	
acg ttg aag gag atg att aag tct gga atg aat gtg gct cgt ctg aac	363
Thr Leu Lys Glu Met Ile Lys Ser Gly Met Asn Val Ala Arg Leu Asn	
60 65 70 75	
ttc tct cat gga act cat gag tac cat gcg gag acc atc aag aat gtg c	412
Phe Ser His Gly Thr His Glu Tyr His Ala Glu Thr Ile Lys Asn Val	
80 85 90	

<210> 2307

<211> 359

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 58..357

<400> 2307

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atg cta tca ccc gag gca gag cga gtg ctg cgg tac ctt gta gaa gtg	105
Met Leu Ser Pro Glu Ala Glu Arg Val Leu Arg Tyr Leu Val Glu Val	
1 5 10 15	
gag gag ctc gcc gag gag gtg ctg gcg gac aag cgg cag att gtg gac	153
Glu Glu Leu Ala Glu Glu Val Leu Ala Asp Lys Arg Gln Ile Val Asp	
20 25 30	
ctg gac act aaa agg aat cag aat cga gag ggc ctg agg gcc ctg cag	201
Leu Asp Thr Lys Arg Asn Gln Asn Arg Glu Gly Leu Arg Ala Leu Gln	
35 40 45	
aag gat ctc agc ctc tct gaa gat gtg atg gtt tgc ttc ggg aac atg	249
Lys Asp Leu Ser Leu Ser Glu Asp Val Met Val Cys Phe Gly Asn Met	
50 55 60	
ttt atc aag atg cct cac cct gag aca aag gaa atg att gaa aaa gat	297
Phe Ile Lys Met Pro His Pro Glu Thr Lys Glu Met Ile Glu Lys Asp	
65 70 75 80	
caa gat cat ctg gat aaa gaa ata gaa aaa ctg cgg aag caa ctt aaa	345
Gln Asp His Leu Asp Lys Glu Ile Glu Lys Leu Arg Lys Gln Leu Lys	
85 90 95	
gtg aag gtc aac cg	359
Val Lys Val Asn	
100	

<210> 2308

<211> 413

<212> DNA

<213> Homo sapiens

<220>  
 <221> CDS  
 <222> 211..411

<400> 2308

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gccttgata	cctggccgcg	ggatgctggg	cggcgtcagg	tgagcgggtg	tcgctggggc	120
tcaggtaacc	atggagaaag	agctgcggas	accattcttt	tcaatgccta	caaaaaggag	180
atattttacca	ccaacaatgg	ctacaaatcc	atg cag aaa	aaa ctt	cgg agt aat	234
			Met Gln Lys	Lys Leu Arg	Ser Asn	
			1	5		
tgg aag att	cag agc tta	aaa gat	gaa atc	aca tct	gag aag tta	aat
Trp Lys Ile	Gln Ser Leu	Lys Asp	Glu Ile Thr	Ser Glu Lys	Leu Asn	282
		15		20		
gga gta aaa	ctg tgg att	aca gct	ggg cca	agg gaa	aaa ttt	act gca
Gly Val Lys	Leu Trp Ile	Thr Ala	Gly Pro Arg	Glu Lys Phe	Thr Ala	330
		30		35		40
gct gag ttt	gaa atc ctg	aag aaa	tat ctt	gac act	ggg gga	gat gtc
Ala Glu Phe	Glu Ile Leu	Lys Lys Tyr	Leu Asp Thr	Gly Gly Asp	Val	378
		45		50		55
ttt gtg atg	cta gga	gaa ggt	gga gaa	tcn aga	tt	
Phe Val Met	Leu Gly	Glu Gly	Gly Glu	Ser Arg		413
	60		65			

<210> 2309  
 <211> 243  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 56..241

<400> 2309

agcgaagtag	gcagggggcga	ggcggctggg	gaccgcgggg	cggacgggag	cgagt atg	58
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					1	
tcc gct ctg	act cgg ctg	gcg tct	ttc gct	cgc gtt	gga ggc	cgc ctt
Ser Ala Leu	Thr Arg Leu	Ala Ser	Phe Ala	Arg Val	Gly Gly	Arg Leu
	5		10		15	
ttc aga agc	ggc tgc gca	cgg act	gct gga	gat ggt	gga gtc	cgt cat
Phe Arg Ser	Gly Cys Ala	Arg Thr	Ala Gly	Asp Gly	Gly Val	Arg His
	20		25		30	
gcc ggt ggt	gtg cac att	gag ccc	cgg tat	aga cag	ttc ccc	cag
Ala Gly Gly	Gly Val His	Ile Glu	Pro Arg	Tyr Arg	Gln Phe	Pro Gln
	35		40		45	
ctg acc aga	tcc cag	gtg ttc	cag agc	gag ttc	ttc agc	gg
Leu Thr Arg	Ser Gln Val	Phe Gln	Ser Glu	Phe Phe	Ser	243
	50		55		60	

<210> 2310



<211> 759  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 75..758

<400> 2310

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tagccagaag	cagc atg	caa agt	ggc tcc	tcc atg	agt acg	atc ggc agc 110
	Met Gln	Ser Gly	Ser Ser	Met Ser	Thr Ile	Gly Ser
	1		5		10	
atg atg	agc atc	tac agt	gaa gct	ggg gat	ttc ggg	aac atc ttt gtg 158
Met Met	Ser Ile	Tyr Ser	Glu Ala	Gly Asp	Phe Gly	Asn Ile Phe Val
	15		20		25	
act ggc	agg att	gcc ttt	tcc ctg	aag tat	gag cag	caa acc cag agt 206
Thr Gly	Arg Ile	Ala Phe	Ser Leu	Lys Tyr	Glu Gln	Gln Thr Gln Ser
	30		35		40	
ctg gtt	gtc cat	gtg aag	gag tgc	cat cag	ctg gcc	tat gct gat gaa 254
Leu Val	Val His	Val Lys	Glu Cys	His Gln	Leu Ala	Tyr Ala Asp Glu
	45		50		55	60
gcc aag	aag cgc	tct aac	cca tat	gtg aag	act tac	ctt ctg cct gac 302
Ala Lys	Lys Arg	Ser Asn	Pro Tyr	Val Lys	Thr Tyr	Leu Leu Pro Asp
	65		70		75	
aag tcc	cgc caa	gga aaa	aga aaa	acc agc	atc aag	cgg gac act gtt 350
Lys Ser	Arg Gln	Gly Lys	Arg Lys	Thr Ser	Ile Lys	Arg Asp Thr Val
	80		85		90	
aat cca	cta tat	gat gag	acg ctg	agg tat	gag atc	cca gaa tct ctc 398
Asn Pro	Leu Tyr	Asp Glu	Thr Leu	Arg Tyr	Glu Ile	Pro Glu Ser Leu
	95		100		105	
ctg gcc	cag agg	acc ctg	cag ttc	tca gtt	tgg cat	cat ggt cgt ttt 446
Leu Ala	Gln Arg	Thr Leu	Gln Phe	Ser Val	Trp His	His Gly Arg Phe
	110		115		120	
ggc aga	aac act	ttc ctt	gga gag	gca gag	atc cag	atg gat tcc tgg 494
Gly Arg	Asn Thr	Phe Leu	Gly Glu	Ala Glu	Ile Gln	Met Asp Ser Trp
	125		130		135	140
aag ctt	gat aag	aaa ctg	gat cat	tgc ctc	cct tta	cat gga aag atc 542
Lys Leu	Asp Lys	Lys Leu	Asp His	Cys Leu	Pro Leu	His Gly Lys Ile
	145		150		155	
agt gct	gag tcc	ccg act	ggc ttg	cca tca	cay aaa	ggc gag ttg gtg 590
Ser Ala	Glu Ser	Pro Thr	Gly Leu	Pro Ser	His Lys	Gly Glu Leu Val
	160		165		170	
gtt kca	ttg aaa	tac atc	cca gcc	tcc aaa	acc cct	gtt gga ggt gac 638
Val Xaa	Leu Lys	Tyr Ile	Pro Ala	Ser Lys	Thr Pro	Val Gly Gly Asp
	175		180		185	
cgg aaa	aag agt	aaa ggt	ggg gaa	ggg gga	gag ctc	cag gtg tgg atc 686
Arg Lys	Lys Ser	Lys Gly	Gly Glu	Gly Gly	Glu Leu	Gln Val Trp Ile
	190		195		200	
aaa gaa	gcc aag	aac ttg	acg gct	gcc aaa	gca gga	ggg act tca gac 734
Lys Glu	Ala Lys	Asn Leu	Thr Ala	Ala Lys	Ala Gly	Gly Thr Ser Asp
	205		210		215	220
agc ttt	gtc aag	gga tac	tcc ttc	c		
						759

Ser Phe Val Lys Gly Tyr Ser Phe  
225

<210> 2311  
<211> 377  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 27..377

<400> 2311

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Met Ala Ala Leu Thr Leu Arg Gly Val  
1 5  
cgg gag ctg ctg aag cgt gtg gac ttc gcg acg gtc ccg cgg aga cat 101  
Arg Glu Leu Leu Lys Arg Val Asp Phe Ala Thr Val Pro Arg Arg His  
10 15 20 25  
cga tat aag aag aaa tgg gct gcc aca gag ccc aaa ttc cct gct gtt 149  
Arg Tyr Lys Lys Lys Trp Ala Ala Thr Glu Pro Lys Phe Pro Ala Val  
30 35 40  
cga ctg gct ttg cag aat ttt gac atg act tac agt gtg cag ttt gga 197  
Arg Leu Ala Leu Gln Asn Phe Asp Met Thr Tyr Ser Val Gln Phe Gly  
45 50 55  
gat ctt tgg cca tca atc cgt gtc agt ctc ctc tca gag cag aag tat 245  
Asp Leu Trp Pro Ser Ile Arg Val Ser Leu Leu Ser Glu Gln Lys Tyr  
60 65 70  
ggt gca ctg gtc aat aac ttt gct gcc tgg gat cat gta agt gct aag 293  
Gly Ala Leu Val Asn Asn Phe Ala Ala Trp Asp His Val Ser Ala Lys  
75 80 85  
ctg gag cag ctg agt gcc aag gac ttt gtg aat gaa gcc atc tcc cac 341  
Leu Glu Gln Leu Ser Ala Lys Asp Phe Val Asn Glu Ala Ile Ser His  
90 95 100 105  
tgg gaa ctg cag tct gag ggt ggc caa tct gca acc 377  
Trp Glu Leu Gln Ser Glu Gly Gly Gln Ser Ala Thr  
110 115

<210> 2312  
<211> 214  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 50..214

<400> 2312

gttttttccg tgagagacgt agagctgagc gacccagccc gcgagcgag atg ccg gtg 58  
Met Pro Val  
1  
gcc gtg ggt ccc tac gga cag tcc cag cca agc tgc ttc gac cgt gtc 106



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	1	5	10	
gag ctg	gag acc aat ggc cga	gac cac cac acg gcc	gac ctg tgc cgg	157
Glu Leu	Glu Thr Asn Gly Arg	Asp His His Thr Ala	Asp Leu Cys Arg	
	15	20	25	
gag aag	ctg gtg gtg cga cgg	ggc cag ccc ttc	tgg ctg acc ctg cac	205
Glu Lys	Leu Val Val Arg Arg	Gly Gln Pro Phe Trp	Leu Thr Leu His	
	30	35	40	
ttt gag	ggc cgc aac tac gag	gcc agt gta gac	agt ctc acc ttc agt	253
Phe Glu	Gly Arg Asn Tyr Glu	Ala Ser Val Asp	Ser Leu Thr Phe Ser	
	45	50	55	60
gtc gtg	acc ggc cca gcc cct	agc cag gag gcc	ggg acc aag gcc cgt	301
Val Val	Thr Gly Pro Ala Pro	Ser Gln Glu Ala	Gly Thr Lys Ala Arg	
	65	70	75	
ttt cca	cta aga gat gct gtg	gag gag ggt gac	tgg aca gcc acc gtg	349
Phe Pro	Leu Arg Asp Ala Val	Glu Glu Gly Asp	Trp Thr Ala Thr Val	
	80	85	90	
gtg gac	cag caa gac tgc acc	ctc tgc ctg cag ctc	acc acc ccg gc	396
Val Asp	Gln Gln Asp Cys Thr	Leu Ser Leu Gln	Leu Thr Pro	
	95	100	105	
<210> 2315				
<211> 399				
<212> DNA				
<213> Homo sapiens				
<220>				
<221> CDS				
<222> 52..399				
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aaccgccaga	tttgaatcgc	gggacccgtt	gkcagaggtg	gcggcggcgg c atg ggt
				Met Gly
				1
gcc ccg	acg ttg ccc cct gcc	tgg cag ccc ttt	ctc aag gac cac cgc	105
Ala Pro	Thr Leu Pro Pro Ala	Trp Gln Pro Phe	Leu Lys Asp His Arg	
	5	10	15	
atc tct	aca ttc aag aac	tgg ccc ttc	ttg gag ggc tgc gcc	153
Ile Ser	Thr Phe Lys Asn	Trp Pro Phe	Leu Glu Gly Cys Ala	
	20	25	30	
ccg gag	cgg atg gcc gag	gct ggc ttc	atc cac tgc ccc	201
Pro Glu	Arg Met Ala Glu	Ala Gly Phe	Ile His Cys Pro	
	35	40	45	50
gag cca	gac ttg gcc cag	tgt ttc ttc	tgc ttc aag gag	249
Glu Pro	Asp Leu Ala Gln	Cys Phe Phe	Cys Phe Lys Glu	
	55	60	65	
tgg gag	cca gat gac gac	ccc ata gag	gar sat aaa aag	297
Trp Glu	Pro Asp Asp	Pro Ile Glu	Glu Xaa Lys Lys	
	70	75	80	
ggt tgc	gct ttc ctt tct	gts aag aag	cag ttt gaa gaa	345
Gly Cys	Ala Phe Leu Ser	Val Lys Lys	Gln Phe Glu Glu	
	85	90	95	
ggt gaa	ttt ttg aaa	ctg gac aga	gaa aga gcc aag	393
Gly Glu	Phe Leu Lys	Leu Asp Arg	Glu Arg Ala Lys	
			Asn Lys Ile Ala	

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100  
aag gaa  
Lys Glu  
115  
105  
110  
399

<210> 2316  
<211> 249  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 19..249

<400> 2316  
accggcccgcc gccccgcc atg gag gac ctg gat gcc ctg ctc tct gac ctg 51  
Met Glu Asp Leu Asp Ala Leu Leu Ser Asp Leu  
1 5 10  
gag act acc acc tcg cac atg cca agg tca ggg gct ccc aaa gag cgc 99  
Glu Thr Thr Thr Ser His Met Pro Arg Ser Gly Ala Pro Lys Glu Arg  
15 20 25  
cct gcg gag cct ctc acc cct ccc cca tcc tat ggc cac cag cca cag 147  
Pro Ala Glu Pro Leu Thr Pro Pro Pro Ser Tyr Gly His Gln Pro Gln  
30 35 40  
aca ggg tct ggg gag tct tca gga gcc tcg ggg gac aag gac cac ctg 195  
Thr Gly Ser Gly Glu Ser Ser Gly Ala Ser Gly Asp Lys Asp His Leu  
45 50 55  
tac agc acg gta tgc aag cnt cgg tcn cca aag cct gka gcc ccg gcg 243  
Tyr Ser Thr Val Cys Lys Xaa Arg Ser Pro Lys Pro Xaa Ala Pro Ala  
60 65 70 75  
gcc cct  
Ala Pro 249

<210> 2317  
<211> 270  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 84..269

<400> 2317  
actcgccgcm gccgcccga tattcccgctg gcattcttct tactttgtcc atcctccgga 60  
ctcgcatct tcctccgga gcc atg tca gaa gga gtg gac ttg att gat ata 113  
Met Ser Glu Gly Val Asp Leu Ile Asp Ile  
1 5 10  
tat gct gac gag gag ttc aac cag gac cca gag ttc aac aat aca gat 161  
Tyr Ala Asp Glu Glu Phe Asn Gln Asp Pro Glu Phe Asn Asn Thr Asp  
15 20 25  
cag att gac ctg tat gat gat gtg ctg aca gcc acc tca cag ccc tca 209  
Gln Ile Asp Leu Tyr Asp Asp Val Leu Thr Ala Thr Ser Gln Pro Ser

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	30		35		40	
gat gac aga agc agc agc act gaa cca cct cct cct gtt cgc cag gag						257
Asp Asp Arg Ser Ser Ser Thr Glu Pro Pro Pro Pro Val Arg Gln Glu						
	45		50		55	
cca tct ccc aag c						270
Pro Ser Pro Lys						
60						

<210> 2318  
 <211> 455  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 223..453

<400> 2318	
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gaagtttctt gaggcctccc cagccatcct gaactgtgag tcaattaaac ctctttcctt	120
tataaattac ctagtcttgg gtatgtcttt attagcagtg tgagaactaa ctaatacagt	180
taattggtac tgagagtgga gtgctgctat aaggatacct ga atg tgg aat gca	234
	Met Trp Asn Ala
	1
act ttg gaa ctt agt aac agg cag agg ttg gaa cag ttt gga ggg ctc	282
Thr Leu Glu Leu Ser Asn Arg Gln Arg Leu Glu Gln Phe Gly Gly Leu	
5	10 15 20
aga agt aga tgg gaa aat gtg gga aaa ttt gga att cgt aaa gtc ttg	330
Arg Ser Arg Trp Glu Asn Val Gly Lys Phe Gly Ile Arg Lys Val Leu	
	25 30 35
aag ggc tca gaa gac agg aag atg tgg ggt agt ttg gaa ctt cct aga	378
Lys Gly Ser Glu Asp Arg Lys Met Trp Gly Ser Leu Glu Leu Pro Arg	
	40 45 50
gac ttg ttg aat ggc ttt gac caa aat gct gat agt gat atg gga aat	426
Asp Leu Leu Asn Gly Phe Asp Gln Asn Ala Asp Ser Asp Met Gly Asn	
	55 60 65
gaa gtc cag act aag gtg gtc tca gat gg	455
Glu Val Gln Thr Lys Val Val Ser Asp	
	70 75

<210> 2319  
 <211> 198  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 27..197

<400> 2319	
acaagtgtca ctggcgagaa ggcagc atg tgt ggc tac ggc atc tgt gag tac	53
Met Cys Gly Tyr Gly Ile Cys Glu Tyr	

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          1               5
agc acc gac gag gtg tac aag ggc tac ttc cag gag ggc ctg cgg cac      101
Ser Thr Asp Glu Val Tyr Lys Gly Tyr Phe Gln Glu Gly Leu Arg His
10          15          20          25
gga ttt ggg gtc ctt gag agt ggt ccg cag ccc ccc agc cct tca ggt      149
Gly Phe Gly Val Leu Glu Ser Gly Pro Gln Pro Pro Ser Pro Ser Gly
          30          35          40
aca cgg gcc act ggg aga ggg gcc aga gga gcg gct atg gca ttg agg a      198
Thr Arg Ala Thr Gly Arg Gly Ala Arg Gly Ala Ala Met Ala Leu Arg
          45          50          55

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<210> 2320  
 <211> 294  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 141..293

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<400> 2320
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taccgttatt acactgcggc cggccagaat ccgggtccat cgtccttcc cgagccaacc      120
cagayacagc ggagtttgcc atg ccc gag aat gtg gca ccc cgg agc ggg gcg      173
          Met Pro Glu Asn Val Ala Pro Arg Ser Gly Ala
          1               5               10
act gcc ggg gct gcc ggc ggc cgc ggg aaa ggc gcc tat cas gac cgc      221
Thr Ala Gly Ala Ala Gly Gly Arg Gly Lys Gly Ala Tyr Xaa Asp Arg
          15          20          25
gac aag cca gcs sag atc cgc ttc agc aac att tcc gcc gcc aaa gcg      269
Asp Lys Pro Ala Xaa Ile Arg Phe Ser Asn Ile Ser Ala Ala Lys Ala
          30          35          40
gtt gct gat gct att aga aca agc c
Val Ala Asp Ala Ile Arg Thr Ser      294
          45          50

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<210> 2321  
 <211> 413  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 155..412

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<400> 2321
aagtgactgc gggagtggag ccggcgagag agtggcagcg ggggctgatg gaagtgcagt      60
gggggctgga gagggcacc tactgtatcc agcatgctcc aaggccacag ctctgtgttc      120
caggccttgc tggggamttt yytcamcngg gggg atg ama gca gct ggg gca gct      175
          Met Xaa Ala Ala Gly Ala Ala
          1               5
ctc gtg ttc gta ttc tct agt gga cag agg cgg atc tta gat gga agt      223

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Leu Val Phe Val Phe Ser Ser Gly Gln Arg Arg Ile Leu Asp Gly Ser
  10          15          20
ctt ggc ttt gct gca ggg gtc atg ntg gca gct tcc tat tgg tct ctt      271
Leu Gly Phe Ala Ala Gly Val Met Xaa Ala Ala Ser Tyr Trp Ser Leu
  25          30          35
ctg gcc cca agc agt kra gaa tgg cca cgt cct ctg ggg gct tcg gtg      319
Leu Ala Pro Ser Ser Xaa Glu Trp Pro Arg Pro Leu Gly Ala Ser Val
  40          45          50          55
cct nkg cct tct tcc ctg tgg ctt gtt ggc ttc acc ctt gga gcg gct      367
Pro Xaa Pro Ser Ser Leu Trp Leu Val Gly Phe Thr Leu Gly Ala Ala
  60          65          70
ttt gtc tac ttg gct gac ctc ctg atg cct cam stt ggg tgc agc a      413
Phe Val Tyr Leu Ala Asp Leu Leu Met Pro Xaa Xaa Gly Cys Ser
  75          80          85

<210> 2322
<211> 383
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 75..383

<400> 2322
gccagaggc ctgcgcccac accctctcct gtccagccct cgcccgcctg ggcagggccc      60
ggcgccgtcc gtgg atg agc cac aga acc tct tcc acc ttc cga gcg gag      110
          Met Ser His Arg Thr Ser Ser Thr Phe Arg Ala Glu
          1          5          10
aga agt ttc cat tcc tct tcy tct tcc tcc tcc tct tcc acc tcc tcc      158
Arg Ser Phe His Ser Ser Ser Ser Ser Ser Ser Ser Ser Thr Ser Ser
  15          20          25
tcg gcc tcc cgt gct ctc ccg gcc cag gac ccg ccc atg gag aag gcc      206
Ser Ala Ser Arg Ala Leu Pro Ala Gln Asp Pro Pro Met Glu Lys Ala
  30          35          40
ctg agc atg ttt tcc gat gac ttt ggc agc ttc atg cgg ccc cac tcg      254
Leu Ser Met Phe Ser Asp Phe Gly Ser Phe Met Arg Pro His Ser
  45          50          55          60
gag ccc ctg gcc ttc cca gcc cgc ccc ggt ggg gca ggc aac atc aag      302
Glu Pro Leu Ala Phe Pro Ala Arg Pro Gly Gly Ala Gly Asn Ile Lys
  65          70          75
acc cta gga gac gcc tat gag ttt gcg gtg gac gtg aga gac ttc tca      350
Thr Leu Gly Asp Ala Tyr Glu Phe Ala Val Asp Val Arg Asp Phe Ser
  80          85          90
cct gaa gac atc att gtc acc acc tcc aac aac      383
Pro Glu Asp Ile Ile Val Thr Thr Ser Asn Asn
  95          100

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<210> 2323  
 <211> 219  
 <212> DNA  
 <213> Homo sapiens



<220>  
 <221> CDS  
 <222> 43..219

<400> 2323  
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 Met Ile Ser Arg  
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 cga ast ggc ggc gga cgg gag cga gtg gag gat ttg ttt gag tac gaa 102  
 Arg Xaa Gly Gly Gly Arg Glu Arg Val Glu Asp Leu Phe Glu Tyr Glu  
 5 10 15 20  
 ggg tgc aaa gtg gga cgc ggc acc tac ggt cac gtc tac aag gcg agg 150  
 Gly Cys Lys Val Gly Arg Gly Thr Tyr Gly His Val Tyr Lys Ala Arg  
 25 30 35  
 cgg aaa gat gga ttc cag gag ggc ttc gtg tat gga cct caa gcg ttg 198  
 Arg Lys Asp Gly Phe Gln Glu Gly Phe Val Tyr Gly Pro Gln Ala Leu  
 40 45 50  
 gag gta gca gac ttt tca gca 219  
 Glu Val Ala Asp Phe Ser Ala  
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<210> 2324  
 <211> 253  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 96..251

<400> 2324  
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 ggatcctgag ctgggcctct ggctgcggtc taggc atg agg agc cgg ctg agg 113  
 Met Arg Ser Arg Leu Arg  
 1 5  
 cgg ggc ggg cgt gac ggg ttg gac aca agg atg aca ggc gca ccc maa 161  
 Arg Gly Gly Arg Asp Gly Leu Asp Thr Arg Met Thr Gly Ala Pro Xaa  
 10 15 20  
 agg acc agc cgg cat tcc cag gag ccc ttc caa acc ctg cga cgg cga 209  
 Arg Thr Ser Arg His Ser Gln Glu Pro Phe Gln Thr Leu Arg Arg Arg  
 25 30 35  
 gac tgg tct cag aaa cat ctg aaa aac ctc cca gta agt ttc gc 253  
 Asp Trp Ser Gln Lys His Leu Lys Asn Leu Pro Val Ser Phe  
 40 45 50

<210> 2325  
 <211> 173  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS

<222> 13..171

<400> 2325

gtttctgaag ta atg tgc agg act cct tac atc agc tcc tct gag tct cgt	51
Met Cys Arg Thr Pro Tyr Ile Ser Ser Ser Glu Ser Arg	
1 5 10	
gat tca gcc ttg cct ccc tct ctc ccc ctt tgc ccc ctc ccc gtc cca	99
Asp Ser Ala Leu Pro Pro Ser Leu Pro Leu Cys Pro Leu Pro Val Pro	
15 20 25	
ccc tta ggc gct ggg aga agg gag ggt ggg gag gtc agg ggc ctc tca	147
Pro Leu Gly Ala Gly Arg Arg Glu Gly Gly Glu Val Arg Gly Leu Ser	
30 35 40 45	
gag ggg cct cac ttg tta acc car cc	173
Glu Gly Pro His Leu Leu Thr Gln	
50	

<210> 2326

<211> 443

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 63..443

<400> 2326

agggcgctt ggaatccccg tccttggggcc cccgcaaggt ccccgccgt gcgcgaggca	60
gc atg atg agg cgc acc ctg gaa aac cgg aac gct caa acg aaa caa	107
Met Met Arg Arg Thr Leu Glu Asn Arg Asn Ala Gln Thr Lys Gln	
1 5 10 15	
ctg caa aca gct gtc tca aat gtg gag aag cat ttt gga gaa ctg tgc	155
Leu Gln Thr Ala Val Ser Asn Val Glu Lys His Phe Gly Glu Leu Cys	
20 25 30	
caa atc ttc gct nnn tat gtg cgg aaa act gcc agg ctg aga gac aaa	203
Gln Ile Phe Ala Xaa Tyr Val Arg Lys Thr Ala Arg Leu Arg Asp Lys	
35 40 45	
gca gac ctc ctg gtg aat gaa att aac gcg tat gct gct aca gag acc	251
Ala Asp Leu Leu Val Asn Glu Ile Asn Ala Tyr Ala Ala Thr Glu Thr	
50 55 60	
ccg cat tta aag ctg ggc ctg atg aac ttt gca gat gag ttt gcc aaa	299
Pro His Leu Lys Leu Gly Leu Met Asn Phe Ala Asp Glu Phe Ala Lys	
65 70 75	
ctt cag gat tat cga caa gca gag gtt gaa aga ctt gaa gcc aaa gta	347
Leu Gln Asp Tyr Arg Gln Ala Glu Val Glu Arg Leu Glu Ala Lys Val	
80 85 90 95	
gtt gaa ccc ttg aaa act tat ggg acc att gtg aaa atg aaa cgg gat	395
Val Glu Pro Leu Lys Thr Tyr Gly Thr Ile Val Lys Met Lys Arg Asp	
100 105 110	
gac ctc aaa gca aca ctc aca gca agg aat cga gaa gct aag caa tta	443
Asp Leu Lys Ala Thr Leu Thr Ala Arg Asn Arg Glu Ala Lys Gln Leu	
115 120 125	

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<222> 35..214
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[illegible]

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ttcacagrcg	ctacaggatg	gagcggggcg	caggagccaa	gctgctgccg	ctgctgctgc	60	
ttctgcgggc	gactgggttc	ac atg tgc	aca gac aga	tgg ccg gaa	cgc tac	120	
		Met Cys Thr Asp Arg Trp Pro Glu Arg Tyr				172	
		1		5			
acg gcg gtc	atc gaa gtg	acc agc ggg ggt	ccc tgg ggc	gac tgg gcc			
Thr Ala Val	Ile Glu Val	Thr Ser Gly Gly	Pro Trp Gly Asp	Trp Ala		220	
	15		20		25		
tgg cct gag	atg tgt ccc	gat gga ttc	ttc gcc agc	ggg ttc	tcg ctc		
Trp Pro Glu	Met Cys Pro	Asp Gly Phe	Phe Ala Ser	Gly Phe	Ser Leu	268	
	30	35		40			
aag gtg gag	cct ccc caa	ggc att cct	ggc gac gac	act gca	ctg aat		
Lys Val Glu	Pro Pro Gln	Gly Ile Pro	Gly Asp Asp	Thr Ala	Leu Asn	316	
	45	50		55			
gg							318

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<400> 2329  
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           Met Ser Asp Pro Asp Ser Ser Ile Ile Asp Phe Tyr Pro Glu  
           1                          5                          10  
 gat ttt gct att gat ttg aat ggg aas aaa tat gca tgg caa ggt gtt 97  
 Asp Phe Ala Ile Asp Leu Asn Gly Xaa Lys Tyr Ala Trp Gln Gly Val  
 15                          20                          25                          30  
 gct ctc ttg cca ttc gtg gat gag cga agg wsn cga gct gcc cta gaa 145  
 Ala Leu Leu Pro Phe Val Asp Glu Arg Arg Xaa Arg Ala Ala Leu Glu  
                           35                          40                          45  
 gag gta tac cca gac ctc act cca gaa gag acc aga agn nac agc ctt 193  
 Glu Val Tyr Pro Asp Leu Thr Pro Glu Glu Thr Arg Xaa Xaa Ser Leu  
                           50                          55                          60  
 ggm ggt gat gtc tta ttt gtg ggg aaa cat cac cca ctc cat gac ttc 241  
 Gly Gly Asp Val Leu Phe Val Gly Lys His His Pro Leu His Asp Phe  
                           65                          70                          75  
 att tta gag ctg tac cag aca ggt tcc aca gag cca gtg gag gta ccc 289  
 Ile Leu Glu Leu Tyr Gln Thr Gly Ser Thr Glu Pro Val Glu Val Pro  
                           80                          85                          90  
 cct gaa cta tgt cat ggg att caa ggm aag ttt tct ttg gat gaa gaa 337  
 Pro Glu Leu Cys His Gly Ile Gln Gly Lys Phe Ser Leu Asp Glu Glu  
                           95                          100                          105                          110  
 gcc att ctt cca gat caa ata gta tgt tct cct gtt cct atg tta agg 385  
 Ala Ile Leu Pro Asp Gln Ile Val Cys Ser Pro Val Pro Met Leu Arg  
                           115                          120                          125  
 nmh ctg aca cag aac act gta gtc agt att aat ttt aaa gac cca cag 433  
 Xaa Leu Thr Gln Asn Thr Val Val Ser Ile Asn Phe Lys Asp Pro Gln  
                           130                          135                          140  
 ttt gct gaa gat tac att ttt aaa 457  
 Phe Ala Glu Asp Tyr Ile Phe Lys  
           145                          150

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 <212> DNA  
 <213> Homo sapiens

<220>  
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 <222> 155..514

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004220" 666E7550

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gctgcggcag tgacttcaag gttactgact tttt atg atg ttt ggt ggc tat gag	175
Met Met Phe Gly Gly Tyr Glu	
1 5	
act ata gaa gca tac gaa gat gat ctt tat cga gat gag tca tct agt	223
Thr Ile Glu Ala Tyr Glu Asp Asp Leu Tyr Arg Asp Glu Ser Ser Ser	
10 15 20	
gaa ctg agt gtt gat agt gag gtg gaa ttt caa ctc tat agc caa att	271
Glu Leu Ser Val Asp Ser Glu Val Glu Phe Gln Leu Tyr Ser Gln Ile	
25 30 35	
cat tat gcc caa gat ctt gat gat gtc atc agg gag gaa gag cat gaa	319
His Tyr Ala Gln Asp Leu Asp Asp Val Ile Arg Glu Glu Glu His Glu	
40 45 50 55	
gaa aag aac tct ggg aat tct gaa tct tct agt mgt aaa cca amw cag	367
Glu Lys Asn Ser Gly Asn Ser Glu Ser Ser Ser Xaa Lys Pro Xaa Gln	
60 65 70	
aag aag cta atc gtc ctt tca gat agt gag gtc atc cag ctg tca gat	415
Lys Lys Leu Ile Val Leu Ser Asp Ser Glu Val Ile Gln Leu Ser Asp	
75 80 85	
ggg tca gag gtc atc act nng tct gat gaa gac agt att tat aga tgt	463
Gly Ser Glu Val Ile Thr Xaa Ser Asp Glu Asp Ser Ile Tyr Arg Cys	
90 95 100	
aaa gga aag aat gtt aga gtt caa gca caa gaa aat gcc cat ggt ctt	511
Lys Gly Lys Asn Val Arg Val Gln Ala Gln Glu Asn Ala His Gly Leu	
105 110 115	
tct	
Ser	514
120	
<210> 2331	
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<222> 1..189	
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Met Trp Ser Xaa Gly Ser Ala Arg Ala Thr Arg Cys Arg Ala Ser Arg	
1 5 10 15	
tca agt acg gtg tca cga tgg aac aga tta aaa ggg cca att ggg gcg	96
Ser Ser Thr Val Ser Arg Trp Asn Arg Leu Lys Gly Pro Ile Gly Ala	
20 25 30	
cgg gat gag gag aag ggc gaa ggc act ccc agg gag gag ggg aag gct	144
Arg Asp Glu Glu Lys Gly Glu Gly Thr Pro Arg Glu Glu Gly Lys Ala	
35 40 45	
ggt gtt cag agt gtg gga gaa aag gaa tcc ctg gag gct gcc aag ga	191
Gly Val Gln Ser Val Gly Glu Lys Glu Ser Leu Glu Ala Ala Lys	
50 55 60	

<210> 2332

<211> 344  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 136..342

<400> 2332  
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 tgcgccgctt cggtttgag gtgaccttg cgtgcgggag ccccttctga ttgacctga 120  
 tgagctgtag ctctg atg gcc cct cct tcg gga atg att agg gtg acg gct 171  
                   Met Ala Pro Pro Ser Gly Met Ile Arg Val Thr Ala  
                   1                  5                  10  
 ggc cgg ggc tcg ttc gag tgg cgc ccg gcc ggt ggt gac ccg aac agg 219  
 Gly Arg Gly Ser Phe Glu Trp Arg Pro Ala Gly Gly Asp Pro Asn Arg  
                   15                  20                  25  
 aga gcg gga cgg cga cca ttc tct cgg gag ggg ccc atc tgg aga aag 267  
 Arg Ala Gly Arg Arg Pro Phe Ser Arg Glu Gly Pro Ile Trp Arg Lys  
                   30                  35                  40  
 tcc tct cgc ttg gtc aaa cta gga ggg cga tas acc ggc ctt act gcg 315  
 Ser Ser Arg Leu Val Lys Leu Gly Gly Arg Xaa Thr Gly Leu Thr Ala  
                   45                  50                  55                  60  
 acg atg aca aag tac aac aca ccg tct gg  
 Thr Met Thr Lys Tyr Asn Thr Pro Ser 344  
                   65

<210> 2333  
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 <212> DNA  
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<220>  
 <221> CDS  
 <222> 23..418

<400> 2333  
 ataaggcgga ggcgcgccca ag atg gcg gcc tcc atg tgc gac gtg ttc tcc 52  
                   Met Ala Ala Ser Met Cys Asp Val Phe Ser  
                   1                  5                  10  
 ttc tgc gtg ggc gtg gcg ggc cgc gcg cgg gtc tcc gtg gaa gtc cgt 100  
 Phe Cys Val Gly Val Ala Gly Arg Ala Arg Val Ser Val Glu Val Arg  
                   15                  20                  25  
 ttc gtg agc agc gcc aar gga aaa ggg gct gtt tgc cac aca gct cat 148  
 Phe Val Ser Ser Ala Lys Gly Lys Gly Ala Val Cys His Thr Ala His  
                   30                  35                  40  
 ccg gaa ggg gga gac cat ctt cgt aga acg gcc cct ggt ggc tgc amg 196  
 Pro Glu Gly Gly Asp His Leu Arg Arg Thr Ala Pro Gly Gly Cys Xaa  
                   45                  50                  55  
 ttt ctc tgg aat gca ctt tat cgc tac cga gcc tgt gac cac tgc ctt 244  
 Phe Leu Trp Asn Ala Leu Tyr Arg Tyr Arg Ala Cys Asp His Cys Leu  
                   60                  65                  70

agg gca cta gag aag gca gag gag aat gcc cag agg ctg acc ggg aaa 292  
 Arg Ala Leu Glu Lys Ala Glu Glu Asn Ala Gln Arg Leu Thr Gly Lys  
 75 80 85 90  
 cca ggc cag gtt ctg cct cac cca gag ctg tgc act gtg cgc aaa gac 340  
 Pro Gly Gln Val Leu Pro His Pro Glu Leu Cys Thr Val Arg Lys Asp  
 95 100 105  
 ctc cac cag aac tgt ccc cat tgc caa gtg atg tac tgc agt gca gaa 388  
 Leu His Gln Asn Cys Pro His Cys Gln Val Met Tyr Cys Ser Ala Glu  
 110 115 120  
 tgt cgg ttg gca gcc act gag caa tac cas 418  
 Cys Arg Leu Ala Ala Thr Glu Gln Tyr Xaa  
 125 130

<210> 2334  
 <211> 168  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 13..168

<400> 2334  
 gtgccgggtg tc atg gcg gcc tgc agg tac tgc tgc tcg tgc ctc cgg ctc 51  
 Met Ala Ala Cys Arg Tyr Cys Cys Ser Cys Leu Arg Leu  
 1 5 10  
 cgg ccc ctg agc gat ggt cct ttc ctt ctg cca cgg cgg gat cgg gca 99  
 Arg Pro Leu Ser Asp Gly Pro Phe Leu Leu Pro Arg Arg Asp Arg Ala  
 15 20 25  
 ctc acc cag ttg caa gtg cga gca cta tgg agt agc gca ggg tct cga 147  
 Leu Thr Gln Leu Gln Val Arg Ala Leu Trp Ser Ser Ala Gly Ser Arg  
 30 35 40 45  
 gct gtg gcc gtg gac tta ggc 168  
 Ala Val Ala Val Asp Leu Gly  
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<210> 2335  
 <211> 385  
 <212> DNA  
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<220>  
 <221> CDS  
 <222> 168..383

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 gcttccgggc cgcgtgaggt gcattctcgc gccggtggsr aggttagggc ccgcgttgcc 60  
 acgtggtgca gcgcatattt tcacaagtgg gtctcccttg tccgggamtg tngscmacsg 120  
 astcgtgggc cctggcggtg gacgagcagg aagcggtgt caagtcg atg acc aat 176  
 Met Thr Asn  
 1  
 ttg cag atc aag gaa gag aaa gtc aaa gca gat ayn aat ggt att atc 224

Leu	Gln	Ile	Lys	Glu	Glu	Lys	Val	Lys	Ala	Asp	Xaa	Asn	Gly	Ile	Ile	
5					10					15						
aaa	acc	agt	acc	act	gcc	gag	aaa	aca	gat	gaa	gag	gag	aaa	gag	gac	272
Lys	Thr	Ser	Thr	Thr	Ala	Glu	Lys	Thr	Asp	Glu	Glu	Glu	Lys	Glu	Asp	
20					25				30					35		
aga	gct	gcc	cag	tcc	tta	ctc	aac	aag	ctg	atc	aga	agc	aac	ctt	gtt	320
Arg	Ala	Ala	Gln	Ser	Leu	Leu	Asn	Lys	Leu	Ile	Arg	Ser	Asn	Leu	Val	
			40					45						50		
grn	rnc	aca	aac	cag	ggt	gga	agt	cct	gca	acg	gga	tcc	aaa	ctc	ccc	368
Xaa	Xaa	Thr	Asn	Gln	Gly	Gly	Ser	Pro	Ala	Thr	Gly	Ser	Lys	Leu	Pro	
			55					60					65			
tct	gta	ctc	ggt	gaa	gt											385
Ser	Val	Leu	Gly	Glu												
			70													

<210> 2336  
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 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 278..472

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ctcaagatgg	cggcgcacac	cccgcgggat	acgcctcagm	gcgctttgcc	cgaagttttt											120
acatacaa	tctactagtc	acacctggcc	attcagtgca	gttgctgaat	taatagataa											180
tgcttatgat	cctgatgtga	acgctaaaca	aatatggatt	gacaaaacag	tsataaatga											240
cctatatatgc	ttgacattca	ccgacaatgg	gaatgggt	atg act tct	gat aaa tta											295
				Met Thr Ser	Asp Lys Leu											
				1	5											
cat aaa atg	cta agc ttt	ggc ttc	agt gac	aaa gtc	acc atg	aat ggt										343
His Lys Met	Leu Ser Phe	Gly Phe	Ser Asp	Lys Val	Thr Met	Asn Gly										
	10		15		20											
cat gtc cca	gtk gga tta	tat ggg	aat ggc	ttc aag	tcg ggt	tct atg										391
His Val Pro	Val Gly Leu	Tyr Gly	Asn Gly	Phe Lys	Ser Gly	Ser Met										
	25		30		35											
cgt ctg ggt	aaa gac gca	atc gtt	ttt acc	aaa aat	ggn gaa	agc atg										439
Arg Leu Gly	Lys Asp Ala	Ile Val	Phe Thr	Lys Asn	Gly Glu	Ser Met										
	40		45		50											
agc gtg ggc	ctt ttg tct	cag acc	tac ttg	gaa g												473
Ser Val Gly	Leu Leu Ser	Gln Thr	Tyr Leu	Glu												
	55		60		65											

<210> 2337  
 <211> 209  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 14..208



<400> 2337

taaatggaat gga atg gaa tgg aat caa ctc gag tgg aaa gga atg gaa	49
Met Glu Trp Asn Gln Leu Glu Trp Lys Gly Met Glu	
1 5 10	
tgg aat gga aag gaa tgg aat gaa gtc aac tcs agt gga atg gaa tgg	97
Trp Asn Gly Lys Glu Trp Asn Glu Val Asn Ser Ser Gly Met Glu Trp	
15 20 25	
aat gga atg gat tgg aat gga ttg caa tgg aat gaa ayg gaa tgg aat	145
Asn Gly Met Asp Trp Asn Gly Leu Gln Trp Asn Glu Xaa Glu Trp Asn	
30 35 40	
gga atg gaa tca atc att ccg agt gga atg gaa ggg aat cta atg gag	193
Gly Met Glu Ser Ile Ile Pro Ser Gly Met Glu Gly Asn Leu Met Glu	
45 50 55 60	
ggg aaa gaa ggg aat g	
Gly Lys Glu Gly Asn	209
65	

<210> 2338

<211> 437

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 147..437

<400> 2338

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ctggcgcggt tgtcctggag caggggcgca ggaattctga tgtgaaacta acagtctgtg	120
agccctggaa cctccactca gagaag atg aag gat atc gac ata gga aaa gag	173
Met Lys Asp Ile Asp Ile Gly Lys Glu	
1 5	
tat atc atc ccc agt cct ggg tat aga agt gtg agg gag aga acc agc	221
Tyr Ile Ile Pro Ser Pro Gly Tyr Arg Ser Val Arg Glu Arg Thr Ser	
10 15 20 25	
act tct ggg acg cac aga gac cgt gaa gat tcc aag ttc agg aga act	269
Thr Ser Gly Thr His Arg Asp Arg Glu Asp Ser Lys Phe Arg Arg Thr	
30 35 40	
cga ccg ttg gaa tgc caa gat gcc ttg gaa aca gca gcc cga gcc gag	317
Arg Pro Leu Glu Cys Gln Asp Ala Leu Glu Thr Ala Ala Arg Ala Glu	
45 50 55	
ggc ctc tct ctt gat gcc tcc atg cat tct cag ctc aga atc ctg gat	365
Gly Leu Ser Leu Asp Ala Ser Met His Ser Gln Leu Arg Ile Leu Asp	
60 65 70	
gag gag cat ccc aag gga aag tac cat cat ggc ttg agt gct ctg aag	413
Glu Glu His Pro Lys Gly Lys Tyr His His Gly Leu Ser Ala Leu Lys	
75 80 85	
ccc atc cgg act act tcc aaa cac	
Pro Ile Arg Thr Thr Ser Lys His	437
90 95	

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<220>  
<221> CDS  
<222> 22..186
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[illegible]

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<220>  
<221> CDS  
<222> 210..425
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Ser	Ile	Lys	Val	Leu	Cys	Arg	Phe	Arg	Pro	Leu	Asn	Gln	Ala	Glu	Ile		
	10					15					20						
ctg	cgg	gga	gac	aag	ttc	atc	ccc	att	ttc	caa	ggg	gac	gac	agc	gtc		
Leu	Arg	Gly	Asp	Lys	Phe	Ile	Pro	Ile	Phe	Gln	Gly	Asp	Asp	Ser	Val		
	25				30				35						40		
gtt	att	ggg	ggg	aag	cca	tat	gtt	ttt	gac	cgt	gta	tkc	ccc	cca	aac		
Val	Ile	Gly	Gly	Lys	Pro	Tyr	Val	Phe	Asp	Arg	Val	Xaa	Pro	Pro	Asn		
				45				50						55			
acg	act	caa	gan	caa	gtt	tat	cat	gca	tgt	gcc	atg	cag	att	gtc	aaa		
Thr	Thr	Gln	Xaa	Gln	Val	Tyr	His	Ala	Cys	Ala	Met	Gln	Ile	Val	Lys		
		60						65						70			

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<220>
<221> CDS
<222> 30..236
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				Met	Thr	Leu	Gln	Trp	Ser	Leu	Arg	53
				1				5				
gtc tgc tgg agg ggg tcc tgg ctg att ccc agc tct acr tcc tgt aga												
Val Cys Trp Arg Gly Ser Trp Leu Ile Pro Ser Ser Thr Ser Cys Arg												101
	10			15				20				
ttc tca cac cca ggg cct cct tcg gcc tct tct cag ggg agt ctc aga												
Phe Ser His Pro Gly Pro Pro Ser Ala Ser Ser Gln Gly Ser Leu Arg												149
	25			30				35				
gca gga gcc tct ctc cct tgc cca gtg aaa gtc att ctc ccc tct ccc												
Ala Gly Ala Ser Leu Pro Cys Pro Val Lys Val Ile Leu Pro Ser Pro												197
			45					50				
atc cac ctc acc cgc ggc cac aat cct gag aat tcc ccc c										55		
Ile His Leu Thr Arg Gly His Asn Pro Glu Asn Ser Pro												237
	60							65				

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<220>
<221> CDS
<222> 37..342
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[illegible]

Ala Gln Ser Leu Pro Gly Ala Pro Pro Pro Ser Thr Pro Arg Phe Phe  
 75 80 85  
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 Pro Gly Arg Asn Pro Pro Ser Thr Pro Ser Leu Pro Leu Ile Leu Ser  
 90 95 100 342

<210> 2343  
 <211> 244  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 92..244

<400> 2343  
 agtctacagg ctaggtgcac actggacagt caggggtggtt gtgagctgat ggagactgta 60  
 aatgaaccag aaacaggtga agtgagcaaa g atg cag tca ttg tan agc agg 112  
 Met Gln Ser Leu Xaa Ser Arg  
 1 5  
 aga aaa ata ank gaa tat tgc ctt cag gat att gat gat aaa ttg tca 160  
 Arg Lys Ile Xaa Glu Tyr Cys Leu Gln Asp Ile Asp Asp Lys Leu Ser  
 10 15 20  
 gaa tca gca gag gat gat ggt gaa gat gat acc aat gat gaa gat gat 208  
 Glu Ser Ala Glu Asp Asp Gly Glu Asp Asp Thr Asn Asp Glu Asp Asp  
 25 30 35  
 gat gaa gat agt aac cct aaa aag ata ctc agg ccc 244  
 Asp Glu Asp Ser Asn Pro Lys Lys Ile Leu Arg Pro  
 40 45 50

<210> 2344  
 <211> 260  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 23..259

<400> 2344  
 aaacagnccg cccggcacca cc atg ctc gcc ctg gag gct gca cag ctc gac 52  
 Met Leu Ala Leu Glu Ala Ala Gln Leu Asp  
 1 5 10  
 ggg cca cac ttc agc tgt ctg tac cca gat ggc gtc ttc tat gac ctg 100  
 Gly Pro His Phe Ser Cys Leu Tyr Pro Asp Gly Val Phe Tyr Asp Leu  
 15 20 25  
 gac agc tgc aag cat tcc agc tac cct gat tca gag ggg gct cct gac 148  
 Asp Ser Cys Lys His Ser Ser Tyr Pro Asp Ser Glu Gly Ala Pro Asp  
 30 35 40  
 tcc ctg tgg gac tgg act gtg gcc cca cct gtc cca gcc acc ccc tat 196  
 Ser Leu Trp Asp Trp Thr Val Ala Pro Pro Val Pro Ala Thr Pro Tyr  
 45 50 55

gaa gcc ttc gac ccg gca gca gcs gct ttt agc cac ccc cag gct gcc 244  
 Glu Ala Phe Asp Pro Ala Ala Ala Phe Ser His Pro Gln Ala Ala  
 60 65 70  
 cag ctc tgc tac gaa c 260  
 Gln Leu Cys Tyr Glu  
 75

<210> 2345  
 <211> 413  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 149..412

<400> 2345  
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 ctgcccagga cgcggggtgg gggacaggag ccagagtggg gcctcctgca gaccaatctg 120  
 gggccccaag gtggggggcc ctacagag atg ctc cga ggc atg tac ctc act 172  
 Met Leu Arg Gly Met Tyr Leu Thr  
 1 5  
 cgc aac ggg aac ctg cag agg cga cag acg atg aag gaa gcc aag gac 220  
 Arg Asn Gly Asn Leu Gln Arg Arg Gln Thr Met Lys Glu Ala Lys Asp  
 10 15 20  
 atg aag aac aag ctg ggg atc ntc aga cgg cgg aat gag tcc cct gga 268  
 Met Lys Asn Lys Leu Gly Ile Xaa Arg Arg Arg Asn Glu Ser Pro Gly  
 25 30 35 40  
 gcg cct ccc gcg ggc aag gca gac aaa atg atg aag tca ttc aag cnc 316  
 Ala Pro Pro Ala Gly Lys Ala Asp Lys Met Met Lys Ser Phe Lys Xaa  
 45 50 55  
 acc tca gag gaa gcs stc aag tgg ggc gag tcc ttg gag aag ctg ctg 364  
 Thr Ser Glu Glu Ala Xaa Lys Trp Gly Glu Ser Leu Glu Lys Leu Leu  
 60 65 70  
 gtt cac aaa tac ggg tta gca gtg ttc caa gcc ntc ctt cgc act gag t 413  
 Val His Lys Tyr Gly Leu Ala Val Phe Gln Ala Xaa Leu Arg Thr Glu  
 75 80 85

<210> 2346  
 <211> 428  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
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 tttcctgcct caccggggac cccttcagca gcagcctaca gaaccgggca gaggtgggacn 120  
 aggtgaaagc actgtngagc c atg aca gcg gca gtg acc acc tgg cct ttg 171  
 Met Thr Ala Ala Val Thr Thr Trp Pro Leu

tgc ggg ctg tgc ccg gct	1	ggg agg agg tgc tgc gtt ggc agg acc gca	5	10	
Cys Gly Leu Ser Pro Ala Gly Arg Arg Cys Cys Val Gly Arg Thr Ala	15	20	25		219
gct ccc ggg aga att acc tgg aag gaa aac ctg ctg tac gca ccc agc					267
Ala Pro Gly Arg Ile Thr Trp Lys Glu Asn Leu Leu Tyr Ala Pro Ser	30	35	40		
ctg cgc ttc atc cac gga ctc atc aag cag ttc kca gag aac att tat					315
Leu Arg Phe Ile His Gly Leu Ile Lys Gln Phe Xaa Glu Asn Ile Tyr	45	50	55		
gag gcc ttc ctg gtg ggg aag ccc tcg gac tgc acc ctg gcc tcc gcn					363
Glu Ala Phe Leu Val Gly Lys Pro Ser Asp Cys Thr Leu Ala Ser Ala	60	65	70		
nag tgc aac gag tac agt gag gag gag gag ctg gtg aag ggc gtg ctg					411
Xaa Cys Asn Glu Tyr Ser Glu Glu Glu Glu Leu Val Lys Gly Val Leu	75	80	85	90	
atg gcc ggc ctc ngc yc					428
Met Ala Gly Leu Xaa	95				

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 <222> 256..408

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tttccttctt ctttcctatt aaatattatt tgggaattgt ttaaatTTTT tttttwaaa	180				
aagagagagg cggggaggag tcggagttgt ggagaagcag agggactcag tgtggtgtaa	240				
aggaattcat tagcc atg gat gta ttc atg aaa gga ctt tca aag gcc aag	291				
Met Asp Val Phe Met Lys Gly Leu Ser Lys Ala Lys					
1 5 10					
gag gga gtt gtg gct gct gct gag aaa acc aaa cag ggt gtg gca gaa	339				
Glu Gly Val Val Ala Ala Ala Glu Lys Thr Lys Gln Gly Val Ala Glu					
15 20 25					
gca gca gga aag aca aaa gag ggt gtt ctc tat gta ggc tcc aaa acc	387				
Ala Ala Gly Lys Thr Lys Glu Gly Val Leu Tyr Val Gly Ser Lys Thr					
30 35 40					
aag gag gga gtg gtg cat ggt g	409				
Lys Glu Gly Val Val His Gly					
45 50					

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<222> 114..350

<400> 2348

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cttggggagc gtgcagagac ctctagctcg agcgcgaggg acctcccgcc ggg atg 116
                                     Met
                                     1
cct ggg gag cag atg gac cct act nga agt cag ttg gat tca gat ttc 164
Pro Gly Glu Gln Met Asp Pro Thr Xaa Ser Gln Leu Asp Ser Asp Phe
      5              10              15
tct cag caa gat act cct tgc ctg ata att gaa gat tct cag cct gaa 212
Ser Gln Gln Asp Thr Pro Cys Leu Ile Ile Glu Asp Ser Gln Pro Glu
      20              25              30
agc cag gtt cta gag gat gat tct ggt tct cac ttc agt atg cta tct 260
Ser Gln Val Leu Glu Asp Asp Ser Gly Ser His Phe Ser Met Leu Ser
      35              40              45
cga cac ctt cct aat ctc cag acg cac aaa gaa aat cct gtg ttg gat 308
Arg His Leu Pro Asn Leu Gln Thr His Lys Glu Asn Pro Val Leu Asp
      50              55              60              65
gtt gtg tcc aat cct gaa caa aca gct gga gaa gaa cga gga ga 352
Val Val Ser Asn Pro Glu Gln Thr Ala Gly Glu Glu Arg Gly
      70              75

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<210> 2349  
<211> 368  
<212> DNA  
<213> Homo sapiens

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acccacctgc agccccagc ccttgccagg aaagcagccg cagcc atg gcg ggg atg 117
                                     Met Ala Gly Met
                                     1
aag aca gcc tcc ggg gac tac atc gac tcg tca tgg gag ctg cgg gtg 165
Lys Thr Ala Ser Gly Asp Tyr Ile Asp Ser Ser Trp Glu Leu Arg Val
      5              10              15              20
ttt gtg gga gag gag gac cca gag gcc gag tcg gtc acc ctg cgg gtc 213
Phe Val Gly Glu Glu Asp Pro Glu Ala Glu Ser Val Thr Leu Arg Val
      25              30              35
act ggg gag tcg cac atc ggc ggg gtg ctc ctg aag att gtg gag cag 261
Thr Gly Glu Ser His Ile Gly Gly Val Leu Leu Lys Ile Val Glu Gln
      40              45              50
atc aat cgc aag cag gac tgg tca gac cat gct att tgg tgg gaa cag 309
Ile Asn Arg Lys Gln Asp Trp Ser Asp His Ala Ile Trp Trp Glu Gln
      55              60              65
aag agg cag tgg ctg ctg can ncc cac tgg aca ctg gac aag tac ggg 357
Lys Arg Gln Trp Leu Leu Xaa Xaa His Trp Thr Leu Asp Lys Tyr Gly

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004220-000000

70  
atc ctg gcc ga  
Ile Leu Ala  
85

75

80

368

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Met Asp Asn Tyr Ala Asp Leu Ser Asp Thr Glu Leu Thr Thr  
1 5 10  
ttg ctg cgc cgg tac aac atc ccg cac ggg cct gta gta gga tca act 157  
Leu Leu Arg Arg Tyr Asn Ile Pro His Gly Pro Val Val Gly Ser Thr  
15 20 25 30  
cgt agg ctt tac gag aag aag atc ttc gag tac gag acc cag agg cgg 205  
Arg Arg Leu Tyr Glu Lys Lys Ile Phe Glu Tyr Glu Thr Gln Arg Arg  
35 40 45  
cgg ctc tgc ccc ccc 220  
Arg Leu Ser Pro Pro  
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<220>  
<221> CDS  
<222> 133..354

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tcccccttgg gc atg gcc crr cca ggg gtc tct gtc agg tcc ctg gtg tgc 171  
Met Ala Xaa Pro Gly Val Ser Val Arg Ser Leu Val Ser  
1 5 10  
tct tat gag acc cga gtg gtg ggg atg gct ccg ggg ctg ccc cga wnn 219  
Ser Tyr Glu Thr Arg Val Val Gly Met Ala Pro Gly Leu Pro Arg Xaa  
15 20 25  
agg ggc tgt gcc tct tcc cct tgc tct ccc cgg ggt gca tcc ccc atc 267  
Arg Gly Cys Ala Ser Ser Pro Cys Ser Pro Arg Gly Ala Ser Pro Ile  
30 35 40 45  
cga ggg aca tct ggg ccc ccg ccc cac cgg gcc tgg rga ggc cct ggg 315  
Arg Gly Thr Ser Gly Pro Pro Pro His Arg Ala Trp Xaa Gly Pro Gly



50 55 60  
 cgg cct tca acc cgc agg ggr atg gac aaa acc ctc cgc t 355  
 Arg Pro Ser Thr Arg Arg Gly Met Asp Lys Thr Leu Arg  
 65 70

<210> 2352  
 <211> 366  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 52..366

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 Met Ser  
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 ctg ctg cgg tcg ctg cgc gtg ttt ctg gtc gcg cgg acc ggg agc tac 105  
 Leu Leu Arg Ser Leu Arg Val Phe Leu Val Ala Arg Thr Gly Ser Tyr  
 5 10 15  
 ccg gct ggg tct ctt ctg cgt cag tcg ccc cag cca agg cac aca ttt 153  
 Pro Ala Gly Ser Leu Leu Arg Gln Ser Pro Gln Pro Arg His Thr Phe  
 20 25 30  
 tat gct ggg ccc cgt ctg tct gcc tcg gcc tcc agc aag gag ctc ctc 201  
 Tyr Ala Gly Pro Arg Leu Ser Ala Ser Ala Ser Lys Glu Leu Leu  
 35 40 45 50  
 atg aag ctg cgg cgg aaa aca ggc tac tcc ttt gta aat tgc aag aaa 249  
 Met Lys Leu Arg Arg Lys Thr Gly Tyr Ser Phe Val Asn Cys Lys Lys  
 55 60 65  
 gct ctg gag act tgt ggc ggg gac ctc aaa cag gca gag atc tgg ctc 297  
 Ala Leu Glu Thr Cys Gly Gly Asp Leu Lys Gln Ala Glu Ile Trp Leu  
 70 75 80  
 cac aag gag gcc cag aag gag ggc tgg agc aaa gct gcc aag ctc caa 345  
 His Lys Glu Ala Gln Lys Glu Gly Trp Ser Lys Ala Ala Lys Leu Gln  
 85 90 95  
 ggg agg aag acc aaa gaa ggc 366  
 Gly Arg Lys Thr Lys Glu Gly  
 100 105

<210> 2353  
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 <212> DNA  
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<220>  
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 <222> 41..400

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aag aca aag ttg tcc aag aat ctg ctg cgc atg aag ttt atg caa agg	103
Lys Thr Lys Leu Ser Lys Asn Leu Leu Arg Met Lys Phe Met Gln Arg	
10 15 20	
gga ctg gac tca gaa acc aag aaa caa cta gaa gaa gaa gaa aag aaa	151
Gly Leu Asp Ser Glu Thr Lys Lys Gln Leu Glu Glu Glu Lys Lys	
25 30 35	
atc att agt gaa gag cac tgg tac ttg gat ttg cca gag ctt aaa gag	199
Ile Ile Ser Glu Glu His Trp Tyr Leu Asp Leu Pro Glu Leu Lys Glu	
40 45 50	
aaa gag agt ttc ata ata gaa gag cag agt ttc tta cta tgt gaa gat	247
Lys Glu Ser Phe Ile Ile Glu Glu Gln Ser Phe Leu Leu Cys Glu Asp	
55 60 65	
ctt ctc tat gga aga atg tca ttc aga gga ttt aat cct gag gtt gag	295
Leu Leu Tyr Gly Arg Met Ser Phe Arg Gly Phe Asn Pro Glu Val Glu	
70 75 80 85	
aaa ttg atg ctt cag atg aat gct aag cac aaa gca gaa gaa gtt gaa	343
Lys Leu Met Leu Gln Met Asn Ala Lys His Lys Ala Glu Glu Val Glu	
90 95 100	
gat gaa aca gta gag ctt gat gtg tca gat gaa gag atg gct aga aga	391
Asp Glu Thr Val Glu Leu Asp Val Ser Asp Glu Glu Met Ala Arg Arg	
105 110 115	
tat gat acc	
Tyr Asp Thr	400
120	
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ttcagccata aaaagggaga aatcctgcca ttgttaacaa tatagatgaa cttggaagac	180
aatattggga caaggaccac atg tgc agt gtc aaa agt cgc ctg tgg aag ctg	233
Met Cys Ser Val Lys Ser Arg Leu Trp Lys Leu	
1 5 10	
cta tcc cca gcc agg ctg gcc agg cgg gcc cac cgg agc aaa tgg ctg	281
Leu Ser Pro Ala Arg Leu Ala Arg Arg Ala His Arg Ser Lys Trp Leu	
15 20 25	
gag agt tac ctg ctg cac ctg gag gag atg ggt gtg tca gag gag atg	329
Glu Ser Tyr Leu Leu His Leu Glu Glu Met Gly Val Ser Glu Glu Met	
30 35 40	
cag gca cgg gcc ctg gtg ctg cag ctg tgg gcc a	363
Gln Ala Arg Ala Leu Val Leu Gln Leu Trp Ala	
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<210> 2355	

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 <213> Homo sapiens

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 atg gct aac cct gga ggt ggt gct gtt tgc aac ggg aaa ctt cac aat 107  
 Met Ala Asn Pro Gly Gly Gly Ala Val Cys Asn Gly Lys Leu His Asn  
 1 5 10 15  
 cac aag aaa cag agc aat ggc tca caa agc aga aac tgc aca aag aat 155  
 His Lys Lys Gln Ser Asn Gly Ser Gln Ser Arg Asn Cys Thr Lys Asn  
 20 25 30  
 gga ata gtg aag gaa gcc cag caa aat ggg aag cca cat ttt tat gat 203  
 Gly Ile Val Lys Glu Ala Gln Gln Asn Gly Lys Pro His Phe Tyr Asp  
 35 40 45  
 aag ctc att gtt gaa tcg ttt gag gaa gca ccc ctt cat gtt atg gtt 251  
 Lys Leu Ile Val Glu Ser Phe Glu Glu Ala Pro Leu His Val Met Val  
 50 55 60  
 ttc act tac atg gga tat gga att gga acc ctg ttt ggc tat ctc aga 299  
 Phe Thr Tyr Met Gly Tyr Gly Ile Gly Thr Leu Phe Gly Tyr Leu Arg  
 65 70 75 80  
 gac ttt tta aga aac tgg gga ata gaa aaa tgc aac gca gct gtg gaa 347  
 Asp Phe Leu Arg Asn Trp Gly Ile Glu Lys Cys Asn Ala Ala Val Glu  
 85 90 95  
 cga aaa gaa car aaa gat ttt gtg cca ctg tat caa gac ttt gaa aat 395  
 Arg Lys Glu Gln Lys Asp Phe Val Pro Leu Tyr Gln Asp Phe Glu Asn  
 100 105 110  
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 Phe Tyr Thr Arg Asn Leu Tyr Met Arg Ile Arg Asp Asn  
 115 120 125

<210> 2356  
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 ggaggggacc cggttcccg gtgagtgtcc aggc atg cca gcg gaa cgg ccc gcg 175  
 Met Pro Ala Glu Arg Pro Ala  
 1 5  
 ggc agc ggc ggc tcg gag gct cca gca atg gtt gaa caa ctg gac act 223  
 Gly Ser Gly Gly Ser Glu Ala Pro Ala Met Val Glu Gln Leu Asp Thr

004220" 6666666666

10	15	20	
gct gtg att acc ccg gcc atg cta gaa gag gaa gaa cag ctt gaa gct			271
Ala Val Ile Thr Pro Ala Met Leu Glu Glu Glu Glu Gln Leu Glu Ala			
25	30	35	
gct gga cta gag aga gag cgg aag atg ctg gaa aag gct cgc atg tct			319
Ala Gly Leu Glu Arg Glu Arg Lys Met Leu Glu Lys Ala Arg Met Ser			
40	45	50	55
tgg gat aga gag tcg aca gaa att cgg tac cgt aga ctt caa cat ttg			367
Trp Asp Arg Glu Ser Thr Glu Ile Arg Tyr Arg Arg Leu Gln His Leu			
60	65	70	
ctt gaa aaa agc aat atc tac tcc aaa ttt tta ttg acg aaa atg gaa			415
Leu Glu Lys Ser Asn Ile Tyr Ser Lys Phe Leu Leu Thr Lys Met Glu			
75	80	85	
cag caa caa tta gag gaa cag aag aag aaa gaa aaa ttg gag aga aaa			463
Gln Gln Gln Leu Glu Glu Gln Lys Lys Lys Glu Lys Leu Glu Arg Lys			
90	95	100	
aag gag t			470
Lys Glu			
105			

<210> 2357  
 <211> 326  
 <212> DNA  
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<220>  
 <221> CDS  
 <222> 21..326

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1	5
10	
ggg agt cgg gcc ccg ggc cgc cac cgt cac ctc ggc cgc tgc cgc tgt	101
Gly Ser Arg Ala Pro Gly Arg His Arg His Leu Gly Arg Cys Arg Cys	
15	20
25	
cgc cat cgc ctt gtt tcc cca tcc ccc gcc atg gcc gag gac ctc tct	149
Arg His Arg Leu Val Ser Pro Ser Pro Ala Met Ala Glu Asp Leu Ser	
30	35
40	
gcg gcc acg tcc tac acc gaa gat gat ttc tac tgc ccc gtc tgt cag	197
Ala Ala Thr Ser Tyr Thr Glu Asp Asp Phe Tyr Cys Pro Val Cys Gln	
45	50
55	
gag gtg ctc aaa acg ccc gtg cgg acc acg gcc tgt cag cac gtc aat	245
Glu Val Leu Lys Thr Pro Val Arg Thr Thr Ala Cys Gln His Val Asn	
60	65
70	75
agg agt gaa aca tcc aca tct gat aac aca gaa act tac caa gag aat	293
Arg Ser Glu Thr Ser Thr Ser Asp Asn Thr Glu Thr Tyr Gln Glu Asn	
80	85
90	
aca agt tct tct ggt cat cct act ttt aag tgt	326
Thr Ser Ser Ser Gly His Pro Thr Phe Lys Cys	
95	100

<210> 2358

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 <212> DNA  
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<220>  
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 Met Thr Ser Arg Leu Arg Ala Leu Gly Gly Arg  
 1 5 10  
 att aat aat ata cgc acc tcg gag tta ccc aaa gag aaa act cga tca 159  
 Ile Asn Asn Ile Arg Thr Ser Glu Leu Pro Lys Glu Lys Thr Arg Ser  
 15 20 25  
 gaa gtc att tgc agc atc cac ttt tta gat ggc gtg gta cag acc ttt 207  
 Glu Val Ile Cys Ser Ile His Phe Leu Asp Gly Val Val Gln Thr Phe  
 30 35 40  
 aaa gtt act aaa caa gac act ggc cag gtt ctt ctg gat atg gtg cac 255  
 Lys Val Thr Lys Gln Asp Thr Gly Gln Val Leu Leu Asp Met Val His  
 45 50 55  
 aac cac ctg ggt gtg act gaa aag gaa tat ttt ggt tta cag cat gat 303  
 Asn His Leu Gly Val Thr Glu Lys Glu Tyr Phe Gly Leu Gln His Asp  
 60 65 70 75  
 gac gac tcc gtg gac tct cct aga tgg ctg gaa gca agc aaa gc 347  
 Asp Asp Ser Val Asp Ser Pro Arg Trp Leu Glu Ala Ser Lys  
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 Met Leu Leu Leu Asp Cys Asn Pro Glu Val  
 1 5 10  
 gat ggt ctg aag cat ttg ctg gag aca ggg gcc tcg gtc aac gca ccc 161  
 Asp Gly Leu Lys His Leu Leu Glu Thr Gly Ala Ser Val Asn Ala Pro  
 15 20 25  
 ccg gat ccc tgc aag cag tcg cct gtc cac tta gcc gca gga agc ggc 209  
 Pro Asp Pro Cys Lys Gln Ser Pro Val His Leu Ala Ala Gly Ser Gly  
 30 35 40  
 ctt gct tgc ttt ctt ctc tgg cag ctg caa acg ggc gct gac ctc aac 257  
 Leu Ala Cys Phe Leu Leu Trp Gln Leu Gln Thr Gly Ala Asp Leu Asn  
 45 50 55

cag cag gat gtt tta gga gaa gct cca cta cac aag gca rca aaa gtt	305
Gln Gln Asp Val Leu Gly Glu Ala Pro Leu His Lys Ala Xaa Lys Val	
60 65 70	
gga agc ctg gag tgc cta agc ntg ctt gta gcc agt gat gcn caa att	353
Gly Ser Leu Glu Cys Leu Ser Xaa Leu Val Ala Ser Asp Ala Gln Ile	
75 80 85 90	
gat tta tgt art aag anc ggg caa aca gct gaa gat ctc gct tgg tca	401
Asp Leu Cys Xaa Lys Xaa Gly Gln Thr Ala Glu Asp Leu Ala Trp Ser	
95 100 105	
tgt gga ttt cca gac tgt gcc aag ttt ctt ac	433
Cys Gly Phe Pro Asp Cys Ala Lys Phe Leu	
110 115	

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Ala Xaa Ala Trp Arg Ser Thr Val Asp Glu Phe Leu Ala Ser Gly Phe	
10 15 20	
gac tcc gag tcc gaa tcc gag tcc gaa aat tct cca caa gcg gag aca	148
Asp Ser Glu Ser Glu Ser Glu Ser Glu Asn Ser Pro Gln Ala Glu Thr	
25 30 35 40	
cgg gaa gca cgc gag gct gcc cgg agt ccg gat aag ccg ggc ggg agc	196
Arg Glu Ala Arg Glu Ala Ala Arg Ser Pro Asp Lys Pro Gly Gly Ser	
45 50 55	
cst cgg cca gcc ggc gta aag gcc gtg cct ctg agc aca aag acc agc	244
Xaa Arg Pro Ala Gly Val Lys Ala Val Pro Leu Ser Thr Lys Thr Ser	
60 65 70	
tct ctc ggc tg	255
Ser Leu Gly	
75	

<210> 2361  
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 <212> DNA  
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<220>  
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 <222> 159..317

<400> 2361

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 cccgggggggc aaggggtctg tcccgggcgc asgagagg atg gtc atc cgc gtg ttc 176  
 Met Val Ile Arg Val Phe  
 1 5  
 atc gcc tct tcc tcg ggc ttc gtg gcg ata aag aag aag cag caa gat 224  
 Ile Ala Ser Ser Ser Gly Phe Val Ala Ile Lys Lys Lys Gln Gln Asp  
 10 15 20  
 gtg gtt aga ttt ctg gaa gcc aac aag ata gag ttt gag gag gtg gat 272  
 Val Val Arg Phe Leu Glu Ala Asn Lys Ile Glu Phe Glu Glu Val Asp  
 25 30 35  
 atc aca atg tca gaa gaa cag agg caa tgg atg tac aaa aac gtc c 318  
 Ile Thr Met Ser Glu Glu Gln Arg Gln Trp Met Tyr Lys Asn Val  
 40 45 50

<210> 2362  
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 <212> DNA  
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<220>  
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 <222> 124..372

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 cgccctcgct ttcttgacat tccctggctt ctgtgctctc ttccccaggm sacccagca 120  
 gam atg twt gcc aag gcc ttt cgg gtc aag tcn rac acg gcc atc aag 168  
 Met Xaa Ala Lys Ala Phe Arg Val Lys Ser Xaa Thr Ala Ile Lys  
 1 5 10 15  
 ggg tcg gac agg aga aag ctt cga gct gat gtg aca act gct ttc ccc 216  
 Gly Ser Asp Arg Arg Lys Leu Arg Ala Asp Val Thr Thr Ala Phe Pro  
 20 25 30  
 acc ctt gga amt gat caa gtc tct gag tta gta cct gga aag gag gag 264  
 Thr Leu Gly Xaa Asp Gln Val Ser Glu Leu Val Pro Gly Lys Glu Glu  
 35 40 45  
 ctc aac att gtg aag ttg tat gct cac aaa ggg gat gca gtg act gtg 312  
 Leu Asn Ile Val Lys Leu Tyr Ala His Lys Gly Asp Ala Val Thr Val  
 50 55 60  
 tac gtg agt ggt ggt aam ccc atc ctc ttt gaa ctg gag aaa aat ctg 360  
 Tyr Val Ser Gly Gly Xaa Pro Ile Leu Phe Glu Leu Glu Lys Asn Leu  
 65 70 75  
 tat cca rca gtg 372  
 Tyr Pro Xaa Val  
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<210> 2363  
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<222> 163..438

<400> 2363

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tgcttggcta gagctattgg ggctcgggtg cgcccgagc ggggtggagg gggcagggmg 120  
tggtgaggtta aggtgagtgc cgtagtgggg ttccctggag cc atg gcc tgc tcc 174  
Met Ala Cys Ser

1  
att gtc cag ttc tgc tac ttc cag gac ctc cag gcc gcc cgg gac ttc 222  
Ile Val Gln Phe Cys Tyr Phe Gln Asp Leu Gln Ala Ala Arg Asp Phe  
5 10 15 20  
ctc ttt cct cac ctg cgg gag gag atc ctc agc gcc gcc ttg cgg agg 270  
Leu Phe Pro His Leu Arg Glu Glu Ile Leu Ser Gly Ala Leu Arg Arg  
25 30 35  
gac ccc agt aaa tca aca gac tgg gaa gat gat ggt tgg gga gca tgg 318  
Asp Pro Ser Lys Ser Thr Asp Trp Glu Asp Asp Gly Trp Gly Ala Trp  
40 45 50  
gaa gaa aat gaa cca caa gaa cct gaa gaa gaa gga aat act tgc aaa 366  
Glu Glu Asn Glu Pro Gln Glu Pro Glu Glu Glu Gly Asn Thr Cys Lys  
55 60 65  
aca caa aaa act tcc tgg ctc caa gat tgt gtt tta tcc tta tct cca 414  
Thr Gln Lys Thr Ser Trp Leu Gln Asp Cys Val Leu Ser Leu Ser Pro  
70 75 80  
acc aat gat ctt atg gtg ata gct cg 440  
Thr Asn Asp Leu Met Val Ile Ala  
85 90

<210> 2364

<211> 230

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 35..229

<400> 2364

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1 5  
gac tcc cga cct cag gtg atc tgc ctg cct cgg cct ccc aag gtg ctg 103  
Asp Ser Arg Pro Gln Val Ile Cys Leu Pro Arg Pro Pro Lys Val Leu  
10 15 20  
gga ttg cag gcg tgg gcc acc gcg ccc ggc ctg atc tca gtc ttt aag 151  
Gly Leu Gln Ala Trp Ala Thr Ala Pro Gly Leu Ile Ser Val Phe Lys  
25 30 35  
aga gca gca gct cat ctg tgg cca ctg ctt ccc agg gac ttg cca gaa 199  
Arg Ala Ala Ala His Leu Trp Pro Leu Leu Pro Arg Asp Leu Pro Glu  
40 45 50 55  
ggg agg tgc agg gca cag gga aat aac cca c 230  
Gly Arg Cys Arg Ala Gln Gly Asn Asn Pro  
60 65



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 <212> DNA  
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<220>  
 <221> CDS  
 <222> 212..415

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 ggggagtggg agccgcgggg ttcagagcga tgattccccc acaggaggca tccgctcgac 120  
 ggcgaggagat tgaggacaag ctgagcagga ggaggagact ctgtccttca tccgagacag 180  
 nctggagaag agcgaccagc tcactaagaa c atg gtg tct atc tta tca tcc 232  
 Met Val Ser Ile Leu Ser Ser  
 1 5  
 ttt gag agc cgc ctt atg aag ctg gag aac tcc atc atc cct gtg cac 280  
 Phe Glu Ser Arg Leu Met Lys Leu Glu Asn Ser Ile Ile Pro Val His  
 10 15 20  
 aag cag acg gag aat ctg cag cgg ctg cag gag aat gtt gag aag acg 328  
 Lys Gln Thr Glu Asn Leu Gln Arg Leu Gln Glu Asn Val Glu Lys Thr  
 25 30 35  
 ctg tcc tgc ctg gac cat gtc atc agc tac tac cat gtg gcc agt gac 376  
 Leu Ser Cys Leu Asp His Val Ile Ser Tyr Tyr His Val Ala Ser Asp  
 40 45 50 55  
 act gag aag atc atc aga gag ggc cca cag gta ggc tgg aa 417  
 Thr Glu Lys Ile Ile Arg Glu Gly Pro Gln Val Gly Trp  
 60 65

<210> 2366  
 <211> 234  
 <212> DNA  
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<220>  
 <221> CDS  
 <222> 66..233

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 Met Phe Cys Phe Leu Phe Ser Trp Trp Leu Arg Gly Gly Leu His  
 1 5 10 15  
 gta tta tta aac aca tgc tta tat gta cct tat ggg tat ttg tca ctt 158  
 Val Leu Leu Asn Thr Cys Leu Tyr Val Pro Tyr Gly Tyr Leu Ser Leu  
 20 25 30  
 att tgt tta ctt tgt tta tgg tat ctt aat cta tac aaa ttc tca att 206  
 Ile Cys Leu Leu Cys Leu Trp Tyr Leu Asn Leu Tyr Lys Phe Ser Ile  
 35 40 45  
 ttc ttt tct ttt ctt tct ttt ttt ttt t 234  
 Phe Phe Ser Phe Leu Ser Phe Phe Phe

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50

55

<210> 2367  
<211> 364  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 196..363

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gaactttttg ttcttcacta tggatccag actcctccag agtacatgtg ttgctgttat 120  
aatacatgaa aaaaaaatga agttattaaa ataatagttg atttttaaag ggttcataga 180  
ggctcttctg ttttc atg agc aat aaa cag aaa ctg atc ttt ttg aga cag 231  
Met Ser Asn Lys Gln Lys Leu Ile Phe Leu Arg Gln  
1 5 10  
gat ctc att ctg atg ccc aag ctg gag tgc agt ggg gcg atc ata gct 279  
Asp Leu Ile Leu Met Pro Lys Leu Glu Cys Ser Gly Ala Ile Ile Ala  
15 20 25  
tac tgc agc ctt gac ctc ccg ggc tca ggt gat cct ccc acc tca gcc 327  
Tyr Cys Ser Leu Asp Leu Pro Gly Ser Gly Asp Pro Pro Thr Ser Ala  
30 35 40  
tcc caa gta gct ggg aac agg tgc ata cca cac act c 364  
Ser Gln Val Ala Gly Asn Arg Cys Ile Pro His Thr  
45 50 55

<210> 2368  
<211> 361  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 89..361

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gccgcagggtg gtgcttgtct gcagagtc atg acc tct ttc cgc ttg gcc ctc 112  
Met Thr Ser Phe Arg Leu Ala Leu  
1 5  
atc cag ctt cag att tct tcc atc aaa tca gat aac gtc act cgc gct 160  
Ile Gln Leu Gln Ile Ser Ser Ile Lys Ser Asp Asn Val Thr Arg Ala  
10 15 20  
kgt agc ttc atc cgg gag gca gca acg caa gga gcc aaa ata gtt tct 208  
Xaa Ser Phe Ile Arg Glu Ala Ala Thr Gln Gly Ala Lys Ile Val Ser  
25 30 35 40  
ttg ccg gaa tgc ttt aat tck cca tat gga gcg aaa tat ttt sst gaa 256  
Leu Pro Glu Cys Phe Asn Ser Pro Tyr Gly Ala Lys Tyr Phe Xaa Glu  
45 50 55  
tat gca gag aaa att cct ggt gaa tcc aca cag aag ctt tct gaa gta 304

0044220"666E450

Tyr Ala Glu Lys Ile Pro Gly Glu Ser Thr Gln Lys Leu Ser Glu Val  
60 65 70  
gca aag gaa tgc agc ata tat ctc att gga ggc tct atc cct gaa gag 352  
Ala Lys Glu Cys Ser Ile Tyr Leu Ile Gly Gly Ser Ile Pro Glu Glu  
75 80 85  
gat gct ggg 361  
Asp Ala Gly  
90

<210> 2369  
<211> 238  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 8..238

<400> 2369  
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Met Leu Asn Leu Ala Phe Ile Thr Phe Glu Leu Ser Cys Leu  
1 5 10  
cct tca act cta ttt act aat ttt ttt gtg tgt ttg ttt ttt ggc ttt 97  
Pro Ser Thr Leu Phe Thr Asn Phe Phe Val Cys Leu Phe Phe Gly Phe  
15 20 25 30  
ttg ttt gtt tgt ttg ttt gtt ttt gag atg gaa ttt cac tct ggc ctc 145  
Leu Phe Val Cys Leu Phe Val Phe Glu Met Glu Phe His Ser Gly Leu  
35 40 45  
ggc aac aga gcg aga ctc tgt ctc aaa caa aca aac aaa caa aca aaa 193  
Gly Asn Arg Ala Arg Leu Cys Leu Lys Gln Thr Asn Lys Gln Thr Lys  
50 55 60  
gga ctc tat att caa gtt aaa ata aga agt gta aca gaa tca tgg 238  
Gly Leu Tyr Ile Gln Val Lys Ile Arg Ser Val Thr Glu Ser Trp  
65 70 75

<210> 2370  
<211> 367  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 69..365

<400> 2370  
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gctagggcc atg tct ggt cca act gat gag act gca gga gac ttg cct gtg 110  
Met Ser Gly Pro Thr Asp Glu Thr Ala Gly Asp Leu Pro Val  
1 5 10  
aaa gat aca ggt cta aac ctc ttt gga atg gga ggg tta caa gaa act 158  
Lys Asp Thr Gly Leu Asn Leu Phe Gly Met Gly Gly Leu Gln Glu Thr  
15 20 25 30

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tca aca aca cgg aca atg aag tct cgc cag gca gtg tca cgt gtc agt      206
Ser Thr Thr Arg Thr Met Lys Ser Arg Gln Ala Val Ser Arg Val Ser
          35          40          45
cgt gag gaa ctg gaa gac aga ttt ttg cgt ttg cat gat gag aac att      254
Arg Glu Glu Leu Glu Asp Arg Phe Leu Arg Leu His Asp Glu Asn Ile
          50          55          60
tta ctt aaa cag cat gcc cgc aag cag gag gat aaa att aaa aga atg      302
Leu Leu Lys Gln His Ala Arg Lys Gln Glu Asp Lys Ile Lys Arg Met
          65          70          75
gcc acc aag tta ata cgg cta gtt aat gac aag aaa aga tat gag cgg      350
Ala Thr Lys Leu Ile Arg Leu Val Asn Asp Lys Lys Arg Tyr Glu Arg
          80          85          90
gtt ggt ggc ggc cca ag
Val Gly Gly Gly Pro
95
          367

<210> 2371
<211> 430
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 77..430

<400> 2371
aagtggcctg aaggcggcgc gccagtsccg agcagtgctc gtcctgctc ggggcgctgc      60
ggccccgggc gtcgcc atg acc agt gag ctg gac atc ttc gtg ggg aac acg      112
          Met Thr Ser Glu Leu Asp Ile Phe Val Gly Asn Thr
          1          5          10
acc ctt atc gac gag gac gtg tat cgc ctc tgg ctc gat ggt tac tcg      160
Thr Leu Ile Asp Glu Asp Val Tyr Arg Leu Trp Leu Asp Gly Tyr Ser
          15          20          25
gtg acc gac gcg gtg gcc ctg cgg gtg cgc tcg gga atc ctg gag cag      208
Val Thr Asp Ala Val Ala Leu Arg Val Arg Ser Gly Ile Leu Glu Gln
          30          35          40
act ggc gcc acg gca gcg gtg ctg cag agc gac acc atg gac cat tac      256
Thr Gly Ala Thr Ala Ala Val Leu Gln Ser Asp Thr Met Asp His Tyr
          45          50          55          60
cgc acc ttc cac atg ctc gag cgg ctg ctg cat gcg ccg ccc aag cta      304
Arg Thr Phe His Met Leu Glu Arg Leu Leu His Ala Pro Pro Lys Leu
          65          70          75
ctg cac cag ctc atc ttc cag att ccg ccc tcc cgg cag gca cta ctc      352
Leu His Gln Leu Ile Phe Gln Ile Pro Pro Ser Arg Gln Ala Leu Leu
          80          85          90
atc gag agg tac tat gcc ttt gat gag gcc ttt gtt cgg gag gtg ctg      400
Ile Glu Arg Tyr Tyr Ala Phe Asp Glu Ala Phe Val Arg Glu Val Leu
          95          100          105
ggc aag aag ctg tcc aaa ggc acc aag aaa
Gly Lys Lys Leu Ser Lys Gly Thr Lys Lys
          110          115
          430

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<210> 2372

<211> 305  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 150..305

<400> 2372  
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 gcagtttggt cgcagtttac tcgcacacca gtttccccca ccgcgctttg gattagtgtg 120  
 atctcagctc aaggcaaagg tgggatatc atg gca tct atc tgg gtc gga cac 173  
 Met Ala Ser Ile Trp Val Gly His  
 1 5  
 cga gga aca gta aga gat tat cca gac ttt agc cca tca gtg gat gct 221  
 Arg Gly Thr Val Arg Asp Tyr Pro Asp Phe Ser Pro Ser Val Asp Ala  
 10 15 20  
 gaa gct att cag aaa gca atc aga gga att gga act gat gag aaa atg 269  
 Glu Ala Ile Gln Lys Ala Ile Arg Gly Ile Gly Thr Asp Glu Lys Met  
 25 30 35 40  
 ctc atc agc att ctg act gag agg tca aat gca cag 305  
 Leu Ile Ser Ile Leu Thr Glu Arg Ser Asn Ala Gln  
 45 50

<210> 2373  
 <211> 243  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 60..242

<400> 2373  
 aaamaccggg aagcsggtcg cgtggagtga cgtcccacc gcgggggatat ctcttccaa 59  
 atg cat gat gaa gga gtt ctc atc cac agc ggc aaa ggc aat aca gaa 107  
 Met His Asp Glu Gly Val Leu Ile His Ser Gly Lys Gly Asn Thr Glu  
 1 5 10 15  
 gtg atc cac aca ggg aca ttg caa aga cat gaa agt cat cac att aga 155  
 Val Ile His Thr Gly Thr Leu Gln Arg His Glu Ser His His Ile Arg  
 20 25 30  
 gat ttt tgc ttc cag gaa att gag aaa gat att cat aac ttt gag ttt 203  
 Asp Phe Cys Phe Gln Glu Ile Glu Lys Asp Ile His Asn Phe Glu Phe  
 35 40 45  
 cag tgg caa gaa gag gaa agg aat ggt cac gaa gca ccc a 243  
 Gln Trp Gln Glu Glu Glu Arg Asn Gly His Glu Ala Pro  
 50 55 60

<210> 2374  
 <211> 222  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 33..221

<400> 2374

acacagasgc cmngccttas cgcggctcag cc atg agc aac agg agy asc ttt	53
Met Ser Asn Arg Ser Xaa Phe	
1 5	
tcc cgg ctc acc tgg ytc agg aag cag agg aaa sct gtg gtc agc acc	101
Ser Arg Leu Thr Trp Xaa Arg Lys Gln Arg Lys Xaa Val Val Ser Thr	
10 15 20	
agc sac aag aag atg ccc aac gga atc ttg gas sag caa gag cag caa	149
Ser Xaa Lys Lys Met Pro Asn Gly Ile Leu Xaa Xaa Gln Glu Gln Gln	
25 30 35	
akg gtg atg ctg ctc agc agg tca ccc tca ggg ccc aag aag tat ttt	197
Xaa Val Met Leu Leu Ser Arg Ser Pro Ser Gly Pro Lys Lys Tyr Phe	
40 45 50 55	
ccc atc ccc gtg gag cac ctg gag g	222
Pro Ile Pro Val Glu His Leu Glu	
60	

<210> 2375  
 <211> 335  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 16..333

<400> 2375

atcaaagtag gcnag atg gcg tcg agm ggc ggg gag cta ggg mgt tta ttt	51
Met Ala Ser Xaa Gly Gly Glu Leu Gly Xaa Leu Phe	
1 5 10	
gat cac cac gtc cag agg gcg gta tgc gac aca cgg gcc aaa tat cga	99
Asp His His Val Gln Arg Ala Val Cys Asp Thr Arg Ala Lys Tyr Arg	
15 20 25	
gag gga cga cgg cct cgt gct gtg aag gta tat aca atc aat ttg gaa	147
Glu Gly Arg Arg Pro Arg Ala Val Lys Val Tyr Thr Ile Asn Leu Glu	
30 35 40	
tct cag tac tta tta ata caa gga gtt cct gct gtg gga gtc atg aag	195
Ser Gln Tyr Leu Leu Ile Gln Gly Val Pro Ala Val Gly Val Met Lys	
45 50 55 60	
gaa tta gtt gag cga ttc gct tta tat ggt gca att gaa cag tac aat	243
Glu Leu Val Glu Arg Phe Ala Leu Tyr Gly Ala Ile Glu Gln Tyr Asn	
65 70 75	
gct cta gat gaa tac cca gca gaa gac ttt act gaa gtt tat ctt att	291
Ala Leu Asp Glu Tyr Pro Ala Glu Asp Phe Thr Glu Val Tyr Leu Ile	
80 85 90	
aaa ttt atg aac tta caa agt gca agg aca gcc aag aga aaa at	335
Lys Phe Met Asn Leu Gln Ser Ala Arg Thr Ala Lys Arg Lys	

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004220.666765

95

100

105

<210> 2376  
<211> 168  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 11..166

<400> 2376  
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Met Ala Thr Ala Asn Phe Gly Lys Ile Gln Ile Gly Ile  
1 5 10  
tac gtg gag atc aag cgc agv gwt ggc cga ata cat caa gca atg gta 97  
Tyr Val Glu Ile Lys Arg Xaa Xaa Gly Arg Ile His Gln Ala Met Val  
15 20 25  
aca tct tta aat gaa gat aat gaa agt gta act gtt gaa tgg ata gaa 145  
Thr Ser Leu Asn Glu Asp Asn Glu Ser Val Thr Val Glu Trp Ile Glu  
30 35 40 45  
aat gga gat aca aaa ggc aaa ct 168  
Asn Gly Asp Thr Lys Gly Lys  
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<210> 2377  
<211> 393  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 74..391

<400> 2377  
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tggccgcctg gca atg acc ccc aca gag aga cca cat ggc tct gat atc 109  
Met Thr Pro Thr Glu Arg Pro His Gly Ser Asp Ile  
1 5 10  
tgt acc tca tgg cct cgg cct att ttt gga tct ctg cat cat gtc ccg 157  
Cys Thr Ser Trp Pro Arg Pro Ile Phe Gly Ser Leu His His Val Pro  
15 20 25  
gac ctg tct tgc cgt gga tgg cat acc att ctc atc gtt gag aaa gta 205  
Asp Leu Ser Cys Arg Gly Trp His Thr Ile Leu Ile Val Glu Lys Val  
30 35 40  
ttg aat tct aag acc atc cgt tcc aat agc agt ggc tta tcc att gga 253  
Leu Asn Ser Lys Thr Ile Arg Ser Asn Ser Ser Gly Leu Ser Ile Gly  
45 50 55 60  
act gat ctg tca gtg ttt cag agc tct agc ccg gga gga ggc ggc ggc 301  
Thr Asp Leu Ser Val Phe Gln Ser Ser Ser Pro Gly Gly Gly Gly Gly  
65 70 75  
ggc ggc ggt ggt gaa gaa gag gac agt cag cag gaa tct gaa act cct 349

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Gly Gly Gly Gly Glu Glu Glu Asp Ser Gln Gln Glu Ser Glu Thr Pro  
 80 85 90  
 gac cca agt gga ggc ttc cga gga aca atg gaa gca gac cgc ca 393  
 Asp Pro Ser Gly Gly Phe Arg Gly Thr Met Glu Ala Asp Arg  
 95 100 105

<210> 2378  
 <211> 254  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 8..253

<400> 2378  
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 Met Asp Arg Thr Cys Glu Glu Arg Pro Ala Glu Asp Gly Ser  
 1 5 10  
 gac gag gag gac cca gac tcc atg gaa gcc cca acc cgg atc cgg aac 97  
 Asp Glu Glu Asp Pro Asp Ser Met Glu Ala Pro Thr Arg Ile Arg Asn  
 15 20 25 30  
 act ccg gaa gac atc gtg ctg gaa gct ccg gct agt ggg ctg gcg ttc 145  
 Thr Pro Glu Asp Ile Val Leu Glu Ala Pro Ala Ser Gly Leu Ala Phe  
 35 40 45  
 cat ccg gcc cgt gac cta ctg gct gca ggg gac gtg gac ggg gac gtg 193  
 His Pro Ala Arg Asp Leu Leu Ala Ala Gly Asp Val Asp Gly Asp Val  
 50 55 60  
 ttc gtc ttt tcc tac tct tgc caa gag gga gaa acc aag gag ctc tgg 241  
 Phe Val Phe Ser Tyr Ser Cys Gln Glu Gly Glu Thr Lys Glu Leu Trp  
 65 70 75  
 tca tca gga aac c  
 Ser Ser Gly Asn 254  
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<210> 2379  
 <211> 242  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 89..241

<400> 2379  
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 Met Glu Thr Ala Gly Gln Glu Val  
 1 5  
 agg aga gtg agt caa tgt aga aga agt tgg tgt cct gcc ctc cca act 160  
 Arg Arg Val Ser Gln Cys Arg Arg Ser Trp Cys Pro Ala Leu Pro Thr  
 10 15 20



ttc tat cct ccc ctc ctg ccc tgt gtc cat ccc tca tcc ctc cca acc 208  
 Phe Tyr Pro Pro Leu Leu Pro Cys Val His Pro Ser Ser Leu Pro Thr  
 25 30 35 40  
 aca gtg gga gcc aga ctg aat ata gcg aca tca a 242  
 Thr Val Gly Ala Arg Leu Asn Ile Ala Thr Ser  
 45 50

<210> 2380  
 <211> 231  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 12..230

<400> 2380  
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 Met Ala Ala Ala Xaa Xaa Ala Ala Ala Pro Gly Ser  
 1 5 10  
 aga gag ccg cag gat cgg cca gag tgc gga stg gac acc cgg gtc cca 98  
 Arg Glu Pro Gln Asp Arg Pro Glu Cys Gly Xaa Asp Thr Arg Val Pro  
 15 20 25  
 gat act aca gac acc cgg aga ggt ggc tcc ttc gcc ctg aag cct tcc 146  
 Asp Thr Thr Asp Thr Arg Arg Gly Gly Ser Phe Ala Leu Lys Pro Ser  
 30 35 40 45  
 tcg gcc ccc tac gca ctc ggg ccc ctt ccg cag agg att cgc agc gtg 194  
 Ser Ala Pro Tyr Ala Leu Gly Pro Leu Pro Gln Arg Ile Arg Ser Val  
 50 55 60  
 agg ccc cca gcc cgc tca gga cca gct atg agc aga c 231  
 Arg Pro Pro Ala Arg Ser Gly Pro Ala Met Ser Arg  
 65 70

<210> 2381  
 <211> 369  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 179..367

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 tctccttac cctccttcag cccctgcagt cttactcaag agaccaagaa aacaagct 178  
 atg aaa gtg att caa ata aca acg aaa acc ttc ttg atc tca aat tcc 226  
 Met Lys Val Ile Gln Ile Thr Thr Lys Thr Phe Leu Ile Ser Asn Ser  
 1 5 10 15  
 cat tcc tca agg ccc agc acc att ttc tgt agt gcc tgg ctg ggg cac 274  
 His Ser Ser Arg Pro Ser Thr Ile Phe Cys Ser Ala Trp Leu Gly His  
 20 25 30

att ctt gtc tgc cag ctc cgg gtg ctt agg cat gtg gac atc ctt ctt 322  
 Ile Leu Val Cys Gln Leu Arg Val Leu Arg His Val Asp Ile Leu Leu  
           35                  40                  45  
 ggc cac cat gac tcc ctc cct tac cat caa atc aat tgg cca ccg at 369  
 Gly His His Asp Ser Leu Pro Tyr His Gln Ile Asn Trp Pro Pro  
           50                  55                  60

<210> 2382  
 <211> 276  
 <212> DNA  
 <213> Homo sapiens  
  
 <220>  
 <221> CDS  
 <222> 99..275

<400> 2382  
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 gcagcccatc atccccgcgg gaaaaggacc ttctgtcc atg ckg tgc agg aat cag 116  
   1                  5  
   Met Xaa Cys Arg Asn Gln  
 ctg agc cct gtc aat atc cat ccc agt tat gca cct tct tcc cca agc 164  
 Leu Ser Pro Val Asn Ile His Pro Ser Tyr Ala Pro Ser Ser Pro Ser  
           10                  15                  20  
 agt agc aac tca ggc tcc tac aaa gga agc gac tgt agc ccc atc atg 212  
 Ser Ser Asn Ser Gly Ser Tyr Lys Gly Ser Asp Cys Ser Pro Ile Met  
           25                  30                  35  
 agg cgt tct gga agg tac atg tct tgc ggt gaa aat cat ggt gtc aga 260  
 Arg Arg Ser Gly Arg Tyr Met Ser Cys Gly Glu Asn His Gly Val Arg  
           40                  45                  50  
 ccc cca aac ccr sag c  
 Pro Pro Asn Pro Xaa 276  
 55

<210> 2383  
 <211> 274  
 <212> DNA  
 <213> Homo sapiens  
  
 <220>  
 <221> CDS  
 <222> 93..272

<400> 2383  
 tattgctgtg acaaaatcat catgggaaga gctagtragg gactcttttg gtggttatag 60  
 aaatgccagt rcatactgtt taatgtacat aa atg ata agg cac agt ttc cta 113  
   1                  5  
   Met Ile Arg His Ser Phe Leu  
 ata caa gag gac agt tcg gct cac tgc aac ctc tgc ctc ctg ggt tca 161  
 Ile Gln Glu Asp Ser Ser Ala His Cys Asn Leu Cys Leu Leu Gly Ser  
           10                  15                  20  
 aat gat tct cct gcc tca acc tcc caa gca gct ggg att aca ggc acc 209

Asn	Asp	Ser	Pro	Ala	Ser	Thr	Ser	Gln	Ala	Ala	Gly	Ile	Thr	Gly	Thr		
25						30					35						
cgc	cac	cat	gcc	cgg	cct	att	att	att	att	tta	gag	aca	gag	tct	cgc	257	
Arg	His	His	Ala	Arg	Pro	Ile	Ile	Ile	Ile	Leu	Glu	Thr	Glu	Ser	Arg		
40					45					50				55			
tat	gtt	gtc	cag	gca	tc											274	
Tyr	Val	Val	Gln	Ala													
				60													

<210> 2384  
 <211> 339  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 88..339

<400> 2384																
aaactagaag	gccagaggat	aatggaataa	aagatcattg	caattactta	tccttcctaa											60
aaatatagtt	ttatattaat	tgtgctt	atg gaa gaa	aca atg tca	gcc agt aca											114
			Met Glu Glu Thr	Met Ser Ala	Ser Thr											
			1		5											
ggc ggc	tgt ata	tta agg	ttg gtt	gcg tca	tta cag	gaa cac	ttc cca									162
Gly Gly	Cys Ile	Leu Arg	Leu Val	Ala Ser	Leu Gln	Glu His	Phe Pro									
10		15			20		25									
ttt gtg	gag aaa	cta acc	aag cga	ctg aaa	aga cac	cct gag	gag aca									210
Phe Val	Glu Lys	Leu Thr	Lys Arg	Leu Lys	Arg His	Pro Glu	Glu Thr									
		30			35		40									
gga ggc	ttc cag	gag gca	ccg ctg	gcc tat	gat gcc	atc tgg	gcc ttg									258
Gly Gly	Phe Gln	Glu Ala	Pro Leu	Ala Tyr	Asp Ala	Ile Trp	Ala Leu									
		45			50		55									
gca ctg	gcc ctg	aac aag	aca tct	gga gga	ggc ggc	cgt tct	ggg gttg									306
Ala Leu	Ala Leu	Asn Lys	Thr Ser	Gly Gly	Gly Gly	Arg Ser	Gly Val									
		60			65		70									
cgc ctg	gag gac	ttc aac	tac aac	aac cag	acg											339
Arg Leu	Glu Asp	Phe Asn	Tyr Asn	Asn Asn	Gln Thr											
		75			80											

<210> 2385  
 <211> 278  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 56..277

<400> 2385																
agagaaaagg	ggttaattga	ggcttggttg	gagtcgggat	tcccctttcc	caaac atg											58
					Met											
					1											

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cgt ctc gcc act tgg aca gca ggc ggc tcg gcc ata gga tat acg gtt      106
Arg Leu Ala Thr Trp Thr Ala Gly Gly Ser Ala Ile Gly Tyr Thr Val
      5      10      15
cag gta cca ggg ggc aga gag aag ggc ccg gaa gcc ggc ctt ggt gac      154
Gln Val Pro Gly Gly Arg Glu Lys Gly Pro Glu Ala Gly Leu Gly Asp
      20      25      30
cag ttc cag ctc ctt cat ata gtt cac tgg aat atc ctc tcg cca cac      202
Gln Phe Gln Leu Leu His Ile Val His Trp Asn Ile Leu Ser Pro His
      35      40      45
ctg tat gga ttg tgt ctg gct gaa tct tta ctt tat tat caa aca cct      250
Leu Tyr Gly Leu Cys Leu Ala Glu Ser Leu Leu Tyr Tyr Gln Thr Pro
      50      55      60      65
cct gcc aca cac acc agc aca cgc ccc a      278
Pro Ala Thr His Thr Ser Thr Arg Pro
      70

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<210> 2386

<211> 343

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 72..341

<400> 2386

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gtagagatgc agaaacattg caaaagcaaa aggaaactat aaaagccttt ctaaagaaac      60
tagaagccct c atg gca agc aat gac aat gcc aat aaa acc tgc aag atg      110
      Met Ala Ser Asn Asp Asn Ala Asn Lys Thr Cys Lys Met
      1      5      10
tgg ggg cct cac cat gtc agc cag gct ggt cag gaa ctc cta acc tca      158
Trp Gly Pro His His Val Ser Gln Ala Gly Gln Glu Leu Leu Thr Ser
      15      20      25
agt gat ctg ccc gcc cca gcc tcc caa att gct ggg att aca ggt gtg      206
Ser Asp Leu Pro Ala Pro Ala Ser Gln Ile Ala Gly Ile Thr Gly Val
      30      35      40      45
aac cac cac gcc cgg cca gtc ttc aaa tat ttt tac ttg caa gac gat      254
Asn His His Ala Arg Pro Val Phe Lys Tyr Phe Tyr Leu Gln Asp Asp
      50      55      60
gga cac att ccc ctt ggg ctt ttt gta act gaa acg cac cac aga aga      302
Gly His Ile Pro Leu Gly Leu Phe Val Thr Glu Thr His His Arg Arg
      65      70      75
cag gga gtc atc gaa ggg ctg ctc ggg gag gtg gca ggg cg      343
Gln Gly Val Ile Glu Gly Leu Leu Gly Glu Val Ala Gly
      80      85      90

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<210> 2387

<211> 402

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 138..401

<400> 2387

agctgtgagt aacagcagggc tgtcatgatg ggatatagca gaagcagcag cagcaactcc 60  
tgatttaggg gcaatcgatg aagataaaat aactgcacaa cttactcaaa acccaggaca 120  
aattcagaga gtcaagg atg gaa ctt tgg gct ccc cag agg ctg ccc cag 170  
Met Glu Leu Trp Ala Pro Gln Arg Leu Pro Gln  
1 5 10  
aca cga ggg aag gtc tca gca ccc tca aag gat cca gac cga ggg ttt 218  
Thr Arg Gly Lys Val Ser Ala Pro Ser Lys Asp Pro Asp Arg Gly Phe  
15 20 25  
cgg aga gat gga cat cat ygg cct gtc cct cac tct tgg cac aat gga 266  
Arg Arg Asp Gly His His Xaa Pro Val Pro His Ser Trp His Asn Gly  
30 35 40  
gag agg ttt cac caa tgg caa gac aac cgt ggg agc ccc cag cca cag 314  
Glu Arg Phe His Gln Trp Gln Asp Asn Arg Gly Ser Pro Gln Pro Gln  
45 50 55  
cag gag ccc agg gca gac cat cag cag cag ccc cat tat gca tcc agg 362  
Gln Glu Pro Arg Ala Asp His Gln Gln Gln Pro His Tyr Ala Ser Arg  
60 65 70 75  
cca ggg gac tgg cat cag cct gtg tct gga gtt gac tat a 402  
Pro Gly Asp Trp His Gln Pro Val Ser Gly Val Asp Tyr  
80 85

<210> 2388

<211> 373

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 108..371

<400> 2388

agaggggaatg agtgtgagct cgtgagtggc gccgccgcca ccgccccgc cgccgtcgtc 60  
tcggtagcag ccttcgccac gccggggtct tcagctccac tgggggcc atg tca gag 116  
Met Ser Glu  
1  
cga gaa gag cgg cgg ttt gtg gag atc cct cgg gag tct gtc cgg ctc 164  
Arg Glu Glu Arg Arg Phe Val Glu Ile Pro Arg Glu Ser Val Arg Leu  
5 10 15  
atg gcg gag agc acg ggc ctg gag ctg agc gat gag gtg gcg gcg ctg 212  
Met Ala Glu Ser Thr Gly Leu Glu Leu Ser Asp Glu Val Ala Ala Leu  
20 25 30 35  
ctc gca gag gac gtg tgc tat cgt ctg aga gag gcc acg cag aat agc 260  
Leu Ala Glu Asp Val Cys Tyr Arg Leu Arg Glu Ala Thr Gln Asn Ser  
40 45 50  
tct cag ttc atg aag cac acc aaa cgc cgg aag ctg acg gtt gag gac 308  
Ser Gln Phe Met Lys His Thr Lys Arg Arg Lys Leu Thr Val Glu Asp  
55 60 65  
ttc aac agg gcc ctc aga tgg agc agc gtg gag gct gtg tgt ggt tac 356  
Phe Asn Arg Ala Leu Arg Trp Ser Ser Val Glu Ala Val Cys Gly Tyr

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70 75 80 373  
gga tca cag gag gac ag  
Gly Ser Gln Glu Asp  
85

<210> 2389  
<211> 304  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 13..303

<400> 2389  
cctaaaattg ac atg gaa aga ctc tta gga gga caa cta gga cta gaa gat 51  
Met Glu Arg Leu Leu Gly Gly Gln Leu Gly Leu Glu Asp  
1 5 10  
ttc ata ttt gcc cat gtg aaa gga atc gaa aaa gaa gtg aat gtg tat 99  
Phe Ile Phe Ala His Val Lys Gly Ile Glu Lys Glu Val Asn Val Tyr  
15 20 25  
aaa tct gag gat tca ctt ggt ctc acc att aca gat aat ggt gtt ggc 147  
Lys Ser Glu Asp Ser Leu Gly Leu Thr Ile Thr Asp Asn Gly Val Gly  
30 35 40 45  
tat gct ttt ata aag aga att aaa gat ggt ggt gtt att gac tca gtt 195  
Tyr Ala Phe Ile Lys Arg Ile Lys Asp Gly Gly Val Ile Asp Ser Val  
50 55 60  
aaa aca atc tgt gtt ggg gat cat att gaa tcc ata aat gga gaa aat 243  
Lys Thr Ile Cys Val Gly Asp His Ile Glu Ser Ile Asn Gly Glu Asn  
65 70 75  
att gtt ggg tgg cgt cac tat gat gtt gct aag aag tta aag gaa tta 291  
Ile Val Gly Trp Arg His Tyr Asp Val Ala Lys Lys Leu Lys Glu Leu  
80 85 90  
aaa aag gag gac g  
Lys Lys Glu Asp 304  
95

<210> 2390  
<211> 267  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 11..265

<400> 2390  
tttttttgag atg gag tct ctc tct gtt gcc cag gct gca gtg caa tgt 49  
Met Glu Ser Leu Ser Val Ala Gln Ala Ala Val Gln Cys  
1 5 10  
gcg atc ttg gct tgc tgc aac ctc cgc ctc cca ggt tca agc aag tct 97  
Ala Ile Leu Ala Cys Cys Asn Leu Arg Leu Pro Gly Ser Ser Lys Ser

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15	20	25	
gcc tca gcc tcc caa gta gct ggg att aca ggc atc tgc cac cat gcc			145
Ala Ser Ala Ser Gln Val Ala Gly Ile Thr Gly Ile Cys His His Ala			
30	35	40	45
cag cta att ttt gtg ttt tta gta gag atg ggg twt cac tgt gtt ggc			193
Gln Leu Ile Phe Val Phe Leu Val Glu Met Gly Xaa His Cys Val Gly			
50	55	60	
cag ggt ggt ctc aaa ctc ctt acc tca ggt gat acg cct gcc ttg gcc			241
Gln Gly Gly Leu Lys Leu Leu Thr Ser Gly Asp Thr Pro Ala Leu Ala			
65	70	75	
tcc caa agt gct gcg att aca ggt gt			267
Ser Gln Ser Ala Ala Ile Thr Gly			
80	85		

<210> 2391

<211> 187

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 20..187

<400> 2391

gtgagttcct ggctttgcc atg ttg gtg ctg ccg acc cgg ggc ctc tgt cct	52
Met Leu Val Leu Pro Thr Arg Gly Leu Cys Pro	
1	5
tgg gtc cca gtt atg caa cag tca gtc gag gct gtg ggg ctg gcc cag	100
Trp Val Pro Val Met Gln Gln Ser Val Glu Ala Val Gly Leu Ala Gln	
15	20
ggg ctt tat ctg tct ccc tct cca act ttt gcc aag tta ccc ttc tgg	148
Gly Leu Tyr Leu Ser Pro Ser Pro Thr Phe Ala Lys Leu Pro Phe Trp	
30	35
gct tcc gcc agc cag gag ccc aca ctc cct cag ccc aaa	187
Ala Ser Ala Ser Gln Glu Pro Thr Leu Pro Gln Pro Lys	
45	50
	55

<210> 2392

<211> 264

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 91..264

<400> 2392

acctcctagc gccggtgcgc ggccgaggcc gcactacctg tctgcgggaa agcgggatcc	60
accccaggac gtcgggtcgc tgccgacata atg tca agt gga aac tat cag cag	114
Met Ser Ser Gly Asn Tyr Gln Gln	
1	5
tca gag gct ctt agc aaa ccc act ttc agt gag gaa caa gcc tct gcg	162

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Ser Glu Ala Leu Ser Lys Pro Thr Phe Ser Glu Glu Gln Ala Ser Ala
  10                      15                      20
tta gtg gag tca gtg ttt ggg ttg aaa gtt tcc aag gtc cgg cca ctt      210
Leu Val Glu Ser Val Phe Gly Leu Lys Val Ser Lys Val Arg Pro Leu
  25                      30                      35                      40
cct agc tat gat gac caa aac ttt cat gtc tac gtt tca aaa acc aaa      258
Pro Ser Tyr Asp Asp Gln Asn Phe His Val Tyr Val Ser Lys Thr Lys
                      45                      50                      55
gat agg
Asp Arg
                                           264

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<210> 2393  
 <211> 240  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 58..240

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<400> 2393
catttcattt catgactaaa ataatcctct aagatagata ttagctccat ttcacaa      57
atg aag caa ctg aga ttc aga gac ctg agt cac ttt gct cct aga cct      105
Met Lys Gln Leu Arg Phe Arg Asp Leu Ser His Phe Ala Pro Arg Pro
  1                      5                      10                      15
aca gct aga gat ttg aac cca gca ctc tac ctc ccc cgg agt cat ttc
Thr Ala Arg Asp Leu Asn Pro Ala Leu Tyr Leu Pro Arg Ser His Phe
                      20                      25                      30
ttc ctc ttc cat cag ctg tac ctg ttc ctc tgc cat aga tca tgg cag      201
Phe Leu Phe His Gln Leu Tyr Leu Phe Leu Cys His Arg Ser Trp Gln
                      35                      40                      45
ccc agg tca gac tgt tgg agt tgt cct tta ttc cat ccc
Pro Arg Ser Asp Cys Trp Ser Cys Pro Leu Phe His Pro      240
  50                      55                      60

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<210> 2394  
 <211> 199  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 39..197

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<400> 2394
cagtcctact tgcagttctg aagaatatatt ctttgttt atg atg cca tta cag gaa      56
                      Met Met Pro Leu Gln Glu
                      1                      5
ttt gta agt gtc tgg gtt cga gat cct agg att cag aag gag gac ttc      104
Phe Val Ser Val Trp Val Arg Asp Pro Arg Ile Gln Lys Glu Asp Phe
                      10                      15                      20
tgg cat tct tac att gac tat gag ata tgt att cat act aat agc atg      152

```



Trp His Ser Tyr Ile Asp Tyr Glu Ile Cys Ile His Thr Asn Ser Met  
 25 30 35  
 tgt ttt aca atg aaa aca tcc tgt gta cga aga aga tat aga gaa tt 199  
 Cys Phe Thr Met Lys Thr Ser Cys Val Arg Arg Arg Tyr Arg Glu  
 40 45 50

<210> 2395  
 <211> 328  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 1..327

<400> 2395  
 atg gga agc ccg bac att gaa gtc gac gtc ctg ggc atg cct ctg gac 48  
 Met Gly Ser Pro Xaa Ile Glu Val Asp Val Leu Gly Met Pro Leu Asp  
 1 5 10 15  
 agc tgc cat ttc cgc aca aag ccc atc cat cga aac acc ctg aac ccc 96  
 Ser Cys His Phe Arg Thr Lys Pro Ile His Arg Asn Thr Leu Asn Pro  
 20 25 30  
 atg tgg aac gag cag ttt ctg ttc cgc gtt cac ttc gaa gat ctt gta 144  
 Met Trp Asn Glu Gln Phe Leu Phe Arg Val His Phe Glu Asp Leu Val  
 35 40 45  
 ttt ctt cgt ttt gca gty gtg gaa aac aat agt tca gcg gta act gct 192  
 Phe Leu Arg Phe Ala Val Val Glu Asn Asn Ser Ser Ala Val Thr Ala  
 50 55 60  
 cag aga atc att cca ctg aaa gct tta aaa cga gga tat cga cat ctt 240  
 Gln Arg Ile Ile Pro Leu Lys Ala Leu Lys Arg Gly Tyr Arg His Leu  
 65 70 75 80  
 cag ctg cga aac ctt cac aat gaa gtc ttg gag att tct agt tta ttc 288  
 Gln Leu Arg Asn Leu His Asn Glu Val Leu Glu Ile Ser Ser Leu Phe  
 85 90 95  
 att aac agc aga agg atg gaa gaa aat tcc tct ggc aat a 328  
 Ile Asn Ser Arg Arg Met Glu Glu Asn Ser Ser Gly Asn  
 100 105

<210> 2396  
 <211> 335  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 36..335

<400> 2396  
 agkctgccgg tggggactct tgcagggccg tcccc atg ttr cgt ttt ccg acc 53  
 Met Leu Arg Phe Pro Thr  
 1 5  
 tgt ttc cca tcc ktc cgg gtg rtg gga gak aag cag ctc ccg cag gag 101

Cys	Phe	Pro	Ser	Xaa	Arg	Val	Xaa	Gly	Xaa	Lys	Gln	Leu	Pro	Gln	Glu	
		10						15				20				
att	att	twc	ctg	gtc	tgg	tcg	ccc	aak	cgg	gat	ckc	att	gst	ttg	gcc	149
Ile	Ile	Xaa	Leu	Val	Trp	Ser	Pro	Xaa	Arg	Asp	Xaa	Ile	Xaa	Leu	Ala	
		25					30				35					
aac	aca	gct	ggc	gag	gtt	tta	ctt	cat	cga	ctg	gca	agt	ttt	cat	cga	197
Asn	Thr	Ala	Gly	Glu	Val	Leu	Leu	His	Arg	Leu	Ala	Ser	Phe	His	Arg	
		40				45				50						
gtt	tgg	agt	ttt	cca	cca	aat	gaa	aat	aca	gga	awk	gag	gtg	acg	tgt	245
Val	Trp	Ser	Phe	Pro	Pro	Asn	Glu	Asn	Thr	Gly	Xaa	Glu	Val	Thr	Cys	
		55			60				65					70		
ctg	gca	tgg	aga	cca	gat	ggc	aaa	ctt	ttg	gcc	ttt	gct	ctt	gct	gat	293
Leu	Ala	Trp	Arg	Pro	Asp	Gly	Lys	Leu	Leu	Ala	Phe	Ala	Leu	Ala	Asp	
			75					80				85				
acc	aag	aaa	att	gtt	ttg	tgt	gat	gta	gaa	aaa	cct	gag	agc			335
Thr	Lys	Lys	Ile	Val	Leu	Cys	Asp	Val	Glu	Lys	Pro	Glu	Ser			
			90				95					100				

<210> 2397

<211> 299

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 89..298

<400> 2397

cagtcctagt	gagtgtcagg	agccttctctc	gtccaggcct	tccaggatag	accctcaaga	
gcccactcac	tctaaaccac	tagcccca	atg gag ctg gag cca atg tac agc			60
			Met Glu Leu Glu Pro Met Tyr Ser			112
			1	5		
aat gta aat cct gga gat agc aac ccg att tat tcc cag atc tgg agc						160
Asn Val Asn Pro Gly Asp Ser Asn Pro Ile Tyr Ser Gln Ile Trp Ser						
			10	15	20	
atc cag cat aca aaa gaa aac tca gct aat tgt cca atg atg cat caa						208
Ile Gln His Thr Lys Glu Asn Ser Ala Asn Cys Pro Met Met His Gln						
			25	30	35	40
gag cat gag gaa ctt aca gtc ctc tat tca gaa ctg aag aag aca cac						256
Glu His Glu Glu Leu Thr Val Leu Tyr Ser Glu Leu Lys Lys Thr His						
			45	50	55	
cca gac gac tct gca ggg gag gct agc agc aga ngc agg gcc c						299
Pro Asp Asp Ser Ala Gly Glu Ala Ser Ser Arg Xaa Arg Ala						
			60	65	70	

<210> 2398

<211> 210

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 53..208

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<400> 2398

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tacatggaaa ccgaacaacc tgctcctgaa tgactactgc atacataacg aa atg aag      58
                                           Met Lys
                                           1
gca gaa ata aag atg ttc ttt gaa acc agc gag aac aaa cac aca aca      106
Ala Glu Ile Lys Met Phe Phe Glu Thr Ser Glu Asn Lys His Thr Thr
      5              10              15
tac cag aat ctc tgg gac aca ttc aaa gca gtg ysy aga ggg aaa ttt      154
Tyr Gln Asn Leu Trp Asp Thr Phe Lys Ala Val Xaa Arg Gly Lys Phe
      20              25              30
ata gca gta aat gcc cac aag aga aag cag gaa aga tcc aaa att gac      202
Ile Ala Val Asn Ala His Lys Arg Lys Gln Glu Arg Ser Lys Ile Asp
      35              40              45              50
aca cta ac
Thr Leu      210
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<210> 2399

<211> 389

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 120..389

<400> 2399

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taaccacccg gaacaagcac gagctgagcg agagaagact ccttctgctg agaccccctc      60
tgagcctgtg gactggacat ttgccagag ggagcttctg gaaaaacaag gaattgatt      119
atg aaa caa gag atg gag aaa agg cta cag gaa atg gag atc tta tac      167
Met Lys Gln Glu Met Glu Lys Arg Leu Gln Glu Met Glu Ile Leu Tyr
      1              5              10              15
aaa aag gag aag gaa gaa gca gat ctt ctt ttg gag cag cag aga ctg      215
Lys Lys Glu Lys Glu Glu Ala Asp Leu Leu Leu Glu Gln Gln Arg Leu
      20              25              30
gac gcg gat tct gat agc ggg gac gat tct gac aag agg tcg tgt gaa      263
Asp Ala Asp Ser Asp Ser Gly Asp Asp Ser Asp Lys Arg Ser Cys Glu
      35              40              45
gag agc tgg aaa ctg att act tct ctg aga gaa aag cta cct ccc agc      311
Glu Ser Trp Lys Leu Ile Thr Ser Leu Arg Glu Lys Leu Pro Pro Ser
      50              55              60
aag ttg caa acc att gtt aaa aaa tgt ggc ctc cca agc agt ggg aag      359
Lys Leu Gln Thr Ile Val Lys Lys Cys Gly Leu Pro Ser Ser Gly Lys
      65              70              75              80
aaa cgt gaa cca att aaa atg tat cag ata
Lys Arg Glu Pro Ile Lys Met Tyr Gln Ile      389
      85              90
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<210> 2400

<211> 321

<212> DNA

<213> Homo sapiens

<220>  
 <221> CDS  
 <222> 144..320

<400> 2400  
 agctatggaa actctataag agagatccag cttgcctcct cttgagcagt cagcaacagg 60  
 gtcccgtcct tgacacctca gcctctacag gactgagaag aagtaaaacc gtttgctggg 120  
 gctggcctga ctcaccagct gcc atg cag cag ccc ttc aat tac cca tat ccc 173  
 Met Gln Gln Pro Phe Asn Tyr Pro Tyr Pro  
 1 5 10  
 cag atc tac tgg gtg gac agc agt gcc agc tct ccc tgg gcc cct cca 221  
 Gln Ile Tyr Trp Val Asp Ser Ser Ala Ser Ser Pro Trp Ala Pro Pro  
 15 20 25  
 ggc aca gtt ctt ccc tgt cca acc tct gtg ccc aga agg cct ggt caa 269  
 Gly Thr Val Leu Pro Cys Pro Thr Ser Val Pro Arg Arg Pro Gly Gln  
 30 35 40  
 agg agg cca cca cca cca ccg cca ccg cca cca cta cca cct ccg ccg 317  
 Arg Arg Pro Pro Pro Pro Pro Pro Pro Pro Leu Pro Pro Pro Pro  
 45 50 55  
 cca c  
 Pro 321

<210> 2401  
 <211> 297  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 135..296

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 ggctgttga atggggtctg gaggccagga gccaccctgt ctgggccaga aaggggcctk 120  
 ggtgcagggc aggc atg tgg ccc aag arg ggg cta ctg gga ttg ggg ctc 170  
 Met Trp Pro Lys Xaa Gly Leu Leu Gly Leu Gly Leu  
 1 5 10  
 cca ctg ctg ccc cct aac cat ccc tcg gta gcc caa ggg aca ctc gtt 218  
 Pro Leu Leu Pro Pro Asn His Pro Ser Val Ala Gln Gly Thr Leu Val  
 15 20 25  
 tcc tcc cac tct ggt tct ggc tct gag ggt agg gtg gcg ctc agg agt 266  
 Ser Ser His Ser Gly Ser Gly Ser Glu Gly Arg Val Ala Leu Arg Ser  
 30 35 40  
 gat gtc cac agc ccc aag aca acc csc caa c 297  
 Asp Val His Ser Pro Lys Thr Thr Xaa Gln  
 45 50

<210> 2402  
 <211> 259  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 83..259

<400> 2402

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tccaccacct	gaggagtcac	cc atg tmc	cct cca cct	gaa gag tca	ccc atg	112
		Met Xaa Pro Pro Pro	Glu Glu Ser Pro Met			
		1	5	10		
tmt cca cca	ccg gag gca	tct cgt ctg	twc cca cca	ttt gaa gag	tct	160
Xaa Pro Pro	Pro Glu Ala	Ser Arg Leu	Xaa Pro Pro	Phe Glu Glu	Ser	
	15	20	25			
cct ctg tmc	cct cca cct	gag gag tct	ccc ctt tcc	cca cca cct	gag	208
Pro Leu Xaa	Pro Pro Pro	Glu Glu Ser	Pro Leu Ser	Pro Pro Pro	Glu	
	30	35	40			
gca tca cgc	ctg tmc cca	cca cct gag	gam tgc cct	atg tcc gba	cca	256
Ala Ser Arg	Leu Xaa Pro	Pro Pro Pro	Glu Xaa Ser	Pro Met Ser	Xaa Pro	
	45	50	55			
cct						259
Pro						

<210> 2403  
 <211> 255  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 34..255

<400> 2403

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		Met Leu Lys Gln Trp Gly Ser				
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aga gag tac	cct cac ctc	cag act aac	tgc cta tgt	ttc cca ggc	tcc	102
Arg Glu Tyr	Pro His Leu	Gln Thr Asn	Cys Leu Cys	Phe Pro Gly	Ser	
	10	15	20			
aaa ccc aaa	cca aag cca	gct ggc adg	aca gcc agc	agg caa agc	agc	150
Lys Pro Lys	Pro Lys Pro	Ala Gly Xaa	Thr Ala Ser	Arg Gln Ser	Ser	
	25	30	35			
cag tct gca	gtg caa agg	aag cta gag	aat gta ttt	ggg ggt ggt	caa	198
Gln Ser Ala	Val Gln Arg	Lys Leu Glu	Asn Val Phe	Gly Gly Gly	Gln	
	40	45	50	55		
tgt aga cta	gac tgt ctt	cat cta gga	aaa gga ttc	tat aac act	gtr	246
Cys Arg Leu	Asp Cys Leu	His Leu Gly	Lys Gly Phe	Tyr Asn Thr	Val	
	60	65	70			
act agg act						255
Thr Arg Thr						

<210> 2404  
 <211> 233

<212> DNA  
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<220>  
<221> CDS  
<222> 44..232

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Met Pro Asn Asp  
1  
cag gaa gag gag tcc ttt gca gag ggt cat tcc gaa gcg tcc ctc gcc 103  
Gln Glu Glu Glu Ser Phe Ala Glu Gly His Ser Glu Ala Ser Leu Ala  
5 10 15 20  
agc gct ctg gtg gaa ggg gaa att gca gag gag gct gct gag aag gcg 151  
Ser Ala Leu Val Glu Gly Glu Ile Ala Glu Glu Ala Ala Glu Lys Ala  
25 30 35  
acc tcc agg ggg agt aac tcg ggg atg gac agc aac atc gac ttg act 199  
Thr Ser Arg Gly Ser Asn Ser Gly Met Asp Ser Asn Ile Asp Leu Thr  
40 45 50  
att gtg gaa gat gaa gag gag gag tca gtg gca c 233  
Ile Val Glu Asp Glu Glu Glu Ser Val Ala  
55 60

<210> 2405  
<211> 427  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 171..425

<400> 2405  
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aagcgctcaa ggagaaggag aagcccaagg aagaagaatg ggagaagccc aaggacgccc 120  
cggggctgga gtgcaagccg cggccgctgc ataagacctg ctccctcttc atg cgc 176  
Met Arg  
1  
aac atc gcg ccc aac atc tcc cgg gcc gag atc atc tcc ctt tgt aaa 224  
Asn Ile Ala Pro Asn Ile Ser Arg Ala Glu Ile Ile Ser Leu Cys Lys  
5 10 15  
agg tac cca ggc ttt atg cgg gtg gcg ctc tca gag ccc cag cca gag 272  
Arg Tyr Pro Gly Phe Met Arg Val Ala Leu Ser Glu Pro Gln Pro Glu  
20 25 30  
agg agg ttt ttc cgt cgt ggc tgg gtg acc ttc gac cgc agt gtt aac 320  
Arg Arg Phe Phe Arg Arg Gly Trp Val Thr Phe Asp Arg Ser Val Asn  
35 40 45 50  
att aaa gag atc tgt tgg aac ctg cag aac atc cgt ctc cgg gag tgt 368  
Ile Lys Glu Ile Cys Trp Asn Leu Gln Asn Ile Arg Leu Arg Glu Cys  
55 60 65  
gar ctg agc cct ggt gtg aac agg gac ctg acc cgg cgc gtt cgc aac 416

Glu Leu Ser Pro Gly Val Asn Arg Asp Leu Thr Arg Arg Val Arg Asn  
 70 75 80  
 atc aac ggc at  
 Ile Asn Gly  
 85

427

<210> 2406  
 <211> 245  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 37..243

<400> 2406  
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 Met Gln Pro Asp Arg Ala  
 1 5  
 tct ccg agc cgc cas gcc ttt aaa aag gag cca ggc acc ttg gtg tat 102  
 Ser Pro Ser Arg Xaa Ala Phe Lys Lys Glu Pro Gly Thr Leu Val Tyr  
 10 15 20  
 ata gaa aag cca cgg agc gct gca gga tta tcc agc ctt gta gac ctc 150  
 Ile Glu Lys Pro Arg Ser Ala Ala Gly Leu Ser Ser Leu Val Asp Leu  
 25 30 35  
 ggc cct cct cta atg gag aag caa gtt ttt gcc tac agc acg gcg aca 198  
 Gly Pro Pro Leu Met Glu Lys Gln Val Phe Ala Tyr Ser Thr Ala Thr  
 40 45 50  
 ata ccc aaa gac aga sag acc agc gag amm atg atg aaa acc acg cc 245  
 Ile Pro Lys Asp Arg Xaa Thr Ser Glu Xaa Met Met Lys Thr Thr  
 55 60 65

<210> 2407  
 <211> 231  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 67..231

<400> 2407  
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 tttgca atg ttt cca agg aga cct ctg gac act tgc ttc tca aca ttg 108  
 Met Phe Pro Arg Arg Pro Leu Asp Thr Cys Phe Ser Thr Leu  
 1 5 10  
 cag cgt gta ggc cct cag cag gag ttc aga agt gca cat ttc aca gtg 156  
 Gln Arg Val Gly Pro Gln Gln Glu Phe Arg Ser Ala His Phe Thr Val  
 15 20 25 30  
 aac ctt ctg aga gtg ttg aca gat cac agc ttt tct ttt tgt cta atg 204  
 Asn Leu Leu Arg Val Leu Thr Asp His Ser Phe Ser Phe Cys Leu Met  
 35 40 45

aaa agg gct tgc tgg cca ttg ggt gtc  
 Lys Arg Ala Cys Trp Pro Leu Gly Val  
           50                  55

231

<210> 2408  
 <211> 328  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 6..326

<400> 2408

ccaaa atg aat ttt aaa ttg act gga aaa ggg atc acc ttt ttc tca tct	50
Met Asn Phe Lys Leu Thr Gly Lys Gly Ile Thr Phe Phe Ser Ser	
1                  5                  10                  15	
gag agc aag aaa tat gag asa ccc aag gat gat cga gag gaa gag ttc	98
Glu Ser Lys Lys Tyr Glu Xaa Pro Lys Asp Asp Arg Glu Glu Glu Phe	
20                  25                  30	
aac acg tgg gtc aat aat atg tac gtc ttc ttt gtg aac acg ctc ttt	146
Asn Thr Trp Val Asn Asn Met Tyr Val Phe Phe Val Asn Thr Leu Phe	
35                  40                  45	
cat gcg tat aar cgt gaa gaa gct atc aag gag aaa ata agg gca gac	194
His Ala Tyr Lys Arg Glu Glu Ala Ile Lys Glu Lys Ile Arg Ala Asp	
50                  55                  60	
agg tta cgt agc aca gca cag gcc cag cag cgg aag atg gaa gat gac	242
Arg Leu Arg Ser Thr Ala Gln Ala Gln Gln Arg Lys Met Glu Asp Asp	
65                  70                  75	
gaa ctg gaa gca agg ctg aac atc ttc atc ttg aga gag gaa gag gcc	290
Glu Leu Glu Ala Arg Leu Asn Ile Phe Ile Leu Arg Glu Glu Glu Ala	
80                  85                  90                  95	
aag aga cat gac tat gag gtg gac atc aca gtg ctc aa	328
Lys Arg His Asp Tyr Glu Val Asp Ile Thr Val Leu	
100                  105	

<210> 2409  
 <211> 420  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 23..418

<400> 2409

tttctcctgg caccctgtat tc atg gcc ttg gcg ttc tgc ctc tgc atg gct	52
Met Ala Leu Ala Phe Cys Leu Cys Met Ala	
1                  5                  10	
gaa gcc atc cta ctc ttc tca cct gaa cac tcc ctg ttc ttc ttc tgc	100
Glu Ala Ile Leu Leu Phe Ser Pro Glu His Ser Leu Phe Phe Phe Cys	
15                  20                  25	



tcc cga aaa gca cgg atc cgg ctc cac tgg gca ggg cag acc cta gcc	148
Ser Arg Lys Ala Arg Ile Arg Leu His Trp Ala Gly Gln Thr Leu Ala	
30 35 40	
atc ctc tgt gca gct ctg ggc ctg ggc ttc atc atc tcc agc agg acc	196
Ile Leu Cys Ala Ala Leu Gly Leu Gly Phe Ile Ile Ser Ser Arg Thr	
45 50 55	
cgc agt gag ctg cct cat ctg gtg tcc tgg cac agc tgg gtg gga gcc	244
Arg Ser Glu Leu Pro His Leu Val Ser Trp His Ser Trp Val Gly Ala	
60 65 70	
ctg aca ctg ctg gcc act gct gtc cag gca ctg tgt ggg ctc tgc ctc	292
Leu Thr Leu Leu Ala Thr Ala Val Gln Ala Leu Cys Gly Leu Cys Leu	
75 80 85 90	
ctt tgt ccc cgg gca gcc agg gtc tca agg gtg gct cgc ctc aag ctc	340
Leu Cys Pro Arg Ala Ala Arg Val Ser Arg Val Ala Arg Leu Lys Leu	
95 100 105	
tac cat ctg aca tgt gga ctg gtg gtc tac ctg atg gct aca gta acg	388
Tyr His Leu Thr Cys Gly Leu Val Val Tyr Leu Met Ala Thr Val Thr	
110 115 120	
gtg ctt ctg ggc atg tac tca gta tgg ttc ca	420
Val Leu Leu Gly Met Tyr Ser Val Trp Phe	
125 130	

<210> 2410  
 <211> 336  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 179..334

<400> 2410	
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agaaaaacta agacgcagtc ttccaaacct gtcccgaaca tctaatacac aagttgactc	120
agtgaaaagc agcagaagtg actcaaattt tcaagtgcc aacggaggaa tacctcgt	178
atg caa cct cag gct tca gcc ata cct tct cca ggc aaa ttc cgt tcc	226
Met Gln Pro Gln Ala Ser Ala Ile Pro Ser Pro Gly Lys Phe Arg Ser	
1 5 10 15	
cct gca gca cca tct cct ttg gct ctt cgg caa cca gtg aaa gca ttt	274
Pro Ala Ala Pro Ser Pro Leu Ala Leu Arg Gln Pro Val Lys Ala Phe	
20 25 30	
agt aac cat ggc tct ggt tct cct ggt agc caa gaa ata aca cag ctc	322
Ser Asn His Gly Ser Gly Ser Pro Gly Ser Gln Glu Ile Thr Gln Leu	
35 40 45	
aca caa acc acc aa	336
Thr Gln Thr Thr	
50	

<210> 2411  
 <211> 378  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 178..378

<400> 2411  
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 gagtcatcag aattgcttga atccaggaga aggaggttgc agtgagctga gatcacgcca 120  
 ctgcactcca gcctgggcaa cagagcaaga ctccgtctca aaaaaaaga aaaattg 177  
 atg cta aca ccc agt act ggg aga gat aga tat gtt aga act tta ccc 225  
 Met Leu Thr Pro Ser Thr Gly Arg Asp Arg Tyr Val Arg Thr Leu Pro  
 1 5 10 15  
 tca tac ctt gtt cgt ggt att gtc aat tgg tca gta tct att aag aga 273  
 Ser Tyr Leu Val Arg Gly Ile Val Asn Trp Ser Val Ser Ile Lys Arg  
 20 25 30  
 tat gaa ata gtt ata ttt gac ctg ttg atc ssg ctt ata gta gtc tct 321  
 Tyr Glu Ile Val Ile Phe Asp Leu Leu Ile Xaa Leu Ile Val Val Ser  
 35 40 45  
 cca tgg gaa atc ttt tta aaa agc att aaa att cta tat gca tca aga 369  
 Pro Trp Glu Ile Phe Leu Lys Ser Ile Lys Ile Leu Tyr Ala Ser Arg  
 50 55 60  
 gca ccg car  
 Ala Pro Gln 378  
 65

<210> 2412  
 <211> 231  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 36..230

<400> 2412  
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 Met Phe Phe Ala Pro Xaa  
 1 5  
 tgt gga cac tgc cag cgg ctg cag ccg act tgg aat gac ctg gga gac 101  
 Cys Gly His Cys Gln Arg Leu Gln Pro Thr Trp Asn Asp Leu Gly Asp  
 10 15 20  
 aaa tac aac agc atg gaa gat gcc aaa gtc tat gtg gct aaa gtg gac 149  
 Lys Tyr Asn Ser Met Glu Asp Ala Lys Val Tyr Val Ala Lys Val Asp  
 25 30 35  
 tgc acg gcc cac tcc gac gtg tgc tcc gcc cag ggg gtg cga gga tac 197  
 Cys Thr Ala His Ser Asp Val Cys Ser Ala Gln Gly Val Arg Gly Tyr  
 40 45 50  
 ccc acc tta aag ctt ttc aag cca ggc caa aaa g 231  
 Pro Thr Leu Lys Leu Phe Lys Pro Gly Gln Lys  
 55 60 65

<210> 2413  
 <211> 181

<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 14..181

<400> 2413  
tattttatttt gag atg gag ttt tgc tct ttt tgc cca ggc tac agt gca 49  
Met Glu Phe Cys Ser Phe Cys Pro Gly Tyr Ser Ala  
1 5 10  
atg gtg cca aac tcg cct cac tgc aac ggt gcc aac ctc gcc tca ctg 97  
Met Val Pro Asn Ser Pro His Cys Asn Gly Ala Asn Leu Ala Ser Leu  
15 20 25  
caa cct ctg cct cct ggg ttc aag cga ttc tcc tgc ctt ggc ctc ccg 145  
Gln Pro Leu Pro Pro Gly Phe Lys Arg Phe Ser Cys Leu Gly Leu Pro  
30 35 40  
aat avc tgg gat tac aga cat gcg cca cca cac ccg 181  
Asn Xaa Trp Asp Tyr Arg His Ala Pro Pro His Pro  
45 50 55

<210> 2414  
<211> 320  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 153..320

<400> 2414  
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gccccaaatc cttttcttcc tcctgggctt ggatattgtc actgtcacat ctgctctaac 120  
cctgcctggg ccatgaacgt cataacctta gc atg gaa gcg gga gag aag gca 173  
Met Glu Ala Gly Glu Lys Ala  
1 5  
ggc agg tca agg gtg cga cac ggg gtg atc aga atg ggc tgg gag gtt 221  
Gly Arg Ser Arg Val Arg His Gly Val Ile Arg Met Gly Trp Glu Val  
10 15 20  
gct ggg ata cag aca ggg aca aca gac tca gga gtc ccc cac cag gtg 269  
Ala Gly Ile Gln Thr Gly Thr Thr Asp Ser Gly Val Pro His Gln Val  
25 30 35  
cca cag aag aag ctg gcc cag gag gta gca gag tct ccc ccc acc ccc 317  
Pro Gln Lys Lys Leu Ala Gln Glu Val Ala Glu Ser Pro Pro Thr Pro  
40 45 50 55  
ctc 320  
Leu

<210> 2415  
<211> 196  
<212> DNA  
<213> Homo sapiens

# SECRET

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			Met	Gln	Lys	Leu	Glu	Met	Glu	Gln	Val	Trp	Arg		
			1				5					10			
gcc	agc	acc	agc	ctg	aag	ccc	ccg	acc	gcg	gac	ctc	ttc	act	ggg	agg
Ala	Ser	Thr	Ser	Leu	Lys	Pro	Pro	Thr	Ala	Asp	Leu	Phe	Thr	Gly	Arg
			15					20					25		
ggg	ctt	ggg	gtg	ctt	ccc	aat	ggg	tac	aac	ccg	cca	agg	aat	ctg	tgc
Gly	Leu	Gly	Val	Leu	Pro	Asn	Gly	Tyr	Asn	Pro	Pro	Arg	Asn	Leu	Cys
			30				35					40			
tgg	gat	gtg	ctg	tgt	gtc	gat	cag	ccg	gtg	gtg	gag	gac	cct	cgc	agc
Trp	Asp	Val	Leu	Cys	Val	Asp	Gln	Pro	Val	Val	Glu	Asp	Pro	Arg	Ser
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gga aat cat aac agt ctc tta gac cac agt gca gtc aaa tta gaa ctc																	103
Gly	Asn	His	Asn	Ser	Leu	Leu	Asp	His	Ser	Ala	Val	Lys	Leu	Glu	Leu		
				10						15		20					
agg att aag aaa ctc act caa aac cgc aca act aca tgg aaa ctg aac																	151
Arg	Ile	Lys	Lys	Leu	Thr	Gln	Asn	Arg	Thr	Thr	Thr	Trp	Lys	Leu	Asn		
				25						30		35					
ctg ttc ctg aat gac tac tgg gta aat aat gaa atg aag ggc aaa ata																	199
Leu	Phe	Leu	Asn	Asp	Tyr	Trp	Val	Asn	Asn	Glu	Met	Lys	Gly	Lys	Ile		
			40						45		50						
aag aag ttc ttt gaa acc aat gac aac t																	227
Lys	Lys	Phe	Phe	Glu	Thr	Asn	Asp	Asn									
55				60													

<220>  
<221> CDS

<222> 155..322

<400> 2417

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gtgagtgagt tacgttgaat gctctgaaag aata atg caa ctt ctg gaa atc cca	175
Met Gln Leu Leu Glu Ile Pro	
1 5	
tgg tat cag cca aag ttg tca atg aat caa aaa tca act ttg agg aat	223
Trp Tyr Gln Pro Lys Leu Ser Met Asn Gln Lys Ser Thr Leu Arg Asn	
10 15 20	
gtt ttg aaa ttc aaa gta tat aga aaa cat cac act cta tgc ctt cgt	271
Val Leu Lys Phe Lys Val Tyr Arg Lys His His Thr Leu Cys Leu Arg	
25 30 35	
atg cag aaa aac cat aaa gaa aga aaa ctg gcc tgg cat ggt ggc tca	319
Met Gln Lys Asn His Lys Glu Arg Lys Leu Ala Trp His Gly Gly Ser	
40 45 50 55	
tgc	
Cys	322

<210> 2418

<211> 266

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 82..264

<400> 2418

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agagaaccta atttavagcc c atg gta gaa aaa caa gaa agt gaa aac agc	111
Met Val Glu Lys Gln Glu Ser Glu Asn Ser	
1 5 10	
tgt aat aaa gag gag gaa mcc gtt ttc act aga caa gac agc aat cgc	159
Cys Asn Lys Glu Glu Glu Xaa Val Phe Thr Arg Gln Asp Ser Asn Arg	
15 20 25	
agt gaa aag gaa gcc aca cca gtg gtg cat gaa aca gaa cca gaa tca	207
Ser Glu Lys Glu Ala Thr Pro Val Val His Glu Thr Glu Pro Glu Ser	
30 35 40	
ggg tct caa cct cgg ccg gct gta tta tct ggc tat ttc aaa cag ttt	255
Gly Ser Gln Pro Arg Pro Ala Val Leu Ser Gly Tyr Phe Lys Gln Phe	
45 50 55	
cag aag tcg at	
Gln Lys Ser	266
60	

<210> 2419

<211> 289

<212> DNA

<213> Homo sapiens

**SECRET**

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Met Ile Gly

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<210> 2420
<211> 248
<212> DNA
<213> Homo sapiens
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<400> 2420

1574

<210> 2421  
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 <212> DNA  
 <213> Homo sapiens

<220>  
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 <222> 65..247

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 acct atg gct gac ctt tcc agt ttt gag gag acc agt gct gat gat ttt 109  
 Met Ala Asp Leu Ser Ser Phe Glu Glu Thr Ser Ala Asp Asp Phe  
 1 5 10 15  
 gcc atg gag atg gga ttg gcc tgc gtt gtt tgt agg caa atg atg gtg 157  
 Ala Met Glu Met Gly Leu Ala Cys Val Val Cys Arg Gln Met Met Val  
 20 25 30  
 gca tct ggc aat caa tta gta gaa tgt cag gag tgc cat aat ctc tac 205  
 Ala Ser Gly Asn Gln Leu Val Glu Cys Gln Glu Cys His Asn Leu Tyr  
 35 40 45  
 cac cga gat tgt cat aaa ccc cag gtg aca gac aag gaa gcg c 248  
 His Arg Asp Cys His Lys Pro Gln Val Thr Asp Lys Glu Ala  
 50 55 60

<210> 2422  
 <211> 342  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 178..342

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 gagatgaatg ttacacagat gatcacataa attgcatatg taattacaaa gcatgaaaa 120  
 tggtgaaaaa ccctagatgc tttaaaaaga atgtaataga aaattttatg tagattg 177  
 atg gca tta agg gat tct tct cct ctg aaa aag aaa cac tta agc caa 225  
 Met Ala Leu Arg Asp Ser Ser Pro Leu Lys Lys His Leu Ser Gln  
 1 5 10 15  
 gac ttc att cat tca aca gaa cta ttc aaa ctt gat atg gga aag ttg 273  
 Asp Phe Ile His Ser Thr Glu Leu Phe Lys Leu Asp Met Gly Lys Leu  
 20 25 30  
 aag ttt agg gag aga ggt atc aag aat tac ttc caa att tct ggc atg 321  
 Lys Phe Arg Glu Arg Gly Ile Lys Asn Tyr Phe Gln Ile Ser Gly Met  
 35 40 45  
 agc aac tgg gtg gat aaa gga 342  
 Ser Asn Trp Val Asp Lys Gly  
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<210> 2423  
 <211> 243

<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 16..243

<400> 2423  
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Met Gly Arg Gly Pro Pro Ser Ala Arg Asp Leu Cys  
1 5 10  
cca cgt ggt ctc acc cca ccc tgt gct acc tca tct tcc cgg gag gaa 99  
Pro Arg Gly Leu Thr Pro Pro Cys Ala Thr Ser Ser Ser Arg Glu Glu  
15 20 25  
gct cct tca gac aag ctg gtg agt gag gtg gag gag ctg aac atg tcc 147  
Ala Pro Ser Asp Lys Leu Val Ser Glu Val Glu Glu Leu Asn Met Ser  
30 35 40  
atc aca gcg ctg tgg gag aag ctt cta gaa ggg gag cag tcc ctt tgc 195  
Ile Thr Ala Leu Trp Glu Lys Leu Leu Glu Gly Glu Gln Ser Leu Cys  
45 50 55 60  
aac ctc gag gac atc cac atg agc ctg gag aag gat gtt acc gcc atc 243  
Asn Leu Glu Asp Ile His Met Ser Leu Glu Lys Asp Val Thr Ala Ile  
65 70 75

<210> 2424  
<211> 168  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 13..168

<400> 2424  
ttggccgcct cc atg gcc cgg gga ggc gtg agt gcc agg gtw ctg ctg cag 51  
Met Ala Arg Gly Gly Val Ser Ala Arg Val Leu Leu Gln  
1 5 10  
gct gcc agg ggm acc tgg tgg aac aga cct ggg ggc act tcc ggg tgc 99  
Ala Ala Arg Gly Thr Trp Trp Asn Arg Pro Gly Gly Thr Ser Gly Ser  
15 20 25  
ggg gag gdg gtr gcg ctg ggg ack aac cag ama gtt tca agc gac agg 147  
Gly Glu Xaa Val Ala Leu Gly Thr Asn Gln Xaa Val Ser Ser Asp Arg  
30 35 40 45  
ctc gcg ccc ggc ggg aga ggt  
Leu Ala Pro Gly Gly Arg Gly 168  
50

<210> 2425  
<211> 340  
<212> DNA  
<213> Homo sapiens



<220>  
 <221> CDS  
 <222> 159..338

<400> 2425

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tgccatatta	tagtggctca	ccttacctcc	tggaatgcat	tctggcctca	agtctgtacc	120
tagcattgat	agaggaagcc	cagcctggtg	tgacacagc	atg tac	ctg gtg tgc aca	176
				Met Tyr	Leu Val Cys Thr	
				1	5	
aca tgc acc	tgg tgt gta	ttt tct	gaa atg	ttt gtt	cat gga tta aac	224
Thr Cys Thr	Trp Cys Val	Phe Ser	Glu Met	Phe Val	His Gly Leu Asn	
	10		15		20	
atc act cag	ctc gtg ctg	agc cag	ctg gat	tac ttt	ttc cat tcc aat	272
Ile Thr Gln	Leu Val Leu	Ser Gln	Leu Asp	Tyr Phe	Phe His Ser Asn	
	25		30		35	
ctg aca aac	ttg gtc ttg	tat ttc	tta gtc	cat tta	ctt ttt tcc ctt	320
Leu Thr Asn	Leu Val Leu	Tyr Phe	Leu Val	His Leu	Leu Phe Ser Leu	
	40		45		50	
agc ctg ttt	atg ccg ctg	ac				340
Ser Leu Phe	Met Pro Leu					
55		60				

<210> 2426  
 <211> 385  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 215..385

<400> 2426

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ctatgcctat	gataactttg	gcgtgctggg	cctggacctc	tggcagggtca	agtctggcac	120
catctttgac	aacttctca	tcaccaacga	tgaggcatac	gctgaggagt	ttggcaacga	180
gacgtggggc	gtaacaaagg	cagcagagaa	acaa atg	arg gac	aaa cag gac gag	235
			Met Xaa	Asp Lys	Gln Asp Glu	
			1		5	
gag cag agg	ctt aag gag	gag gaa	gar gac	aag aaa	cgc aaa gag gag	283
Glu Gln Arg	Leu Lys Glu	Glu Glu	Glu Glu	Asp Lys	Lys Arg Lys Glu Glu	
	10		15		20	
gag gag gca	rag gmc aag	gag gwt	gat gag	gmc aaa	gwt gag gwt rag	331
Glu Glu Ala	Xaa Xaa Lys	Glu Xaa	Asp Glu	Xaa Lys	Xaa Glu Xaa Xaa	
	25		30		35	
gag gwt gag	gag gmc aag	gag gaa	gwt gag	gng gaa	gat gtc ccg gcm	379
Glu Xaa Glu	Glu Xaa Lys	Glu Glu	Xaa Glu	Xaa Glu	Asp Val Pro Ala	
	40		45		50	
agg cct					55	
Arg Pro						385

<210> 2427

<211> 235  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 29..235

<400> 2427  
 agaatcaatc ggaatgtaat ggaatgga atg caa cgg aat gga atg gaa tgg 52  
 Met Gln Arg Asn Gly Met Glu Trp  
 1 5  
 aat gga gtg gaa tgg aat gga atg gaa tgc aaa gga atg gaa tca acc 100  
 Asn Gly Val Glu Trp Asn Gly Met Glu Cys Lys Gly Met Glu Ser Thr  
 10 15 20  
 cga gtg gag tgg cat gga atg gag tgc aat gga atg gaa tgg aat ggt 148  
 Arg Val Glu Trp His Gly Met Glu Cys Asn Gly Met Glu Trp Asn Gly  
 25 30 35 40  
 atc aac tcg agt aga aag gaa tgg aat gga atg gaa agg aat gga atg 196  
 Ile Asn Ser Ser Arg Lys Glu Trp Asn Gly Met Glu Arg Asn Gly Met  
 45 50 55  
 aaa tca act cga gtg gaa tgg aat gga atg gat tgg aat 235  
 Lys Ser Thr Arg Val Glu Trp Asn Gly Met Asp Trp Asn  
 60 65

<210> 2428  
 <211> 227  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 74..226

<400> 2428  
 aacgcccagc agtscacc gtcgctgccg ccgccayygc cctcgccgc tgccgagcc 60  
 tcctgcagcc atc atg tcc gcc agc gcc gtc tac gtg ctg gac ctg aag 109  
 Met Ser Ala Ser Ala Val Tyr Val Leu Asp Leu Lys  
 1 5 10  
 ggc aag gtg ctc atc tgc cgg aac tac cgt ggc gac gtg gac atg tca 157  
 Gly Lys Val Leu Ile Cys Arg Asn Tyr Arg Gly Asp Val Asp Met Ser  
 15 20 25  
 sag gtg gag cac ttc atg ccc atc ctg atg gas aag gag gag gag ggg 205  
 Xaa Val Glu His Phe Met Pro Ile Leu Met Xaa Lys Glu Glu Glu Gly  
 30 35 40  
 atg ctg tng ccc atc ccg gcc a 227  
 Met Leu Xaa Pro Ile Pro Ala  
 45 50

<210> 2429  
 <211> 248  
 <212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 21..248

<400> 2429

atggaatgga ttcaacttga atg gaa tgg aag gaa tgg aat caa cac gag tgg 53  
Met Glu Trp Lys Glu Trp Asn Gln His Glu Trp  
1 5 10  
aat gac atg gat tgg aat gga atg gaa tgg aat caa ccc gag tac agg 101  
Asn Asp Met Asp Trp Asn Gly Met Glu Trp Asn Gln Pro Glu Tyr Arg  
15 20 25  
gga atg gaa tgg aat gca atg gac tgg aat gga gtg gga tgg aat gga 149  
Gly Met Glu Trp Asn Ala Met Asp Trp Asn Gly Val Gly Trp Asn Gly  
30 35 40  
atg gaa tgg aat gga atc aac tgc att gga atg gaa tgg aat gga atg 197  
Met Glu Trp Asn Gly Ile Asn Ser Ile Gly Met Glu Trp Asn Gly Met  
45 50 55  
gaa tgg aat gga att aac ccg aat aga atg gaa tgg aat gga atg gaa 245  
Glu Trp Asn Gly Ile Asn Pro Asn Arg Met Glu Trp Asn Gly Met Glu  
60 65 70 75  
cgg 248  
Arg

<210> 2430

<211> 463

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 41..463

<400> 2430

gaggagtgag actgcaggag atgtgggccg tgccaaagag atg gat gag act gtt 55  
Met Asp Glu Thr Val  
1 5  
gct gag ttc atc aag agg acc atc ttg aaa atc ccc atg aat gaa ctg 103  
Ala Glu Phe Ile Lys Arg Thr Ile Leu Lys Ile Pro Met Asn Glu Leu  
10 15 20  
aca aca atc ctg aag gcc tgg gat ttt ttg tct gaa aat caa ctg cag 151  
Thr Thr Ile Leu Lys Ala Trp Asp Phe Leu Ser Glu Asn Gln Leu Gln  
25 30 35  
act gta aat ttc cga cag aga aag gaa tct gta gtt cag cac ttg atc 199  
Thr Val Asn Phe Arg Gln Arg Lys Glu Ser Val Val Gln His Leu Ile  
40 45 50  
cat ctg tgt gag gaa aag cgt gca agt atc agt gat gct gcc ctg tta 247  
His Leu Cys Glu Glu Lys Arg Ala Ser Ile Ser Asp Ala Ala Leu Leu  
55 60 65  
gac atc att tat atg caa ttt cat cag cac cag aaa gtt tgg gat gtt 295  
Asp Ile Ile Tyr Met Gln Phe His Gln His Gln Lys Val Trp Asp Val

004220" 656E7560

70	75	80	85	
ttt cag atg agt aaa gga cca ggt gaa gat gtt gac ctt ttt gat atg				343
Phe Gln Met Ser Lys Gly Pro Gly Glu Asp Val Asp Leu Phe Asp Met				
90	95	100		
maa caa ttt aaa aat tcg ttc aag aaa att ctt cag aga gca tta aaa				391
Xaa Gln Phe Lys Asn Ser Phe Lys Lys Ile Leu Gln Arg Ala Leu Lys				
105	110	115		
aat gtg aca gtc agc ttc aga gam act gmg gag aat gca gtc tgg att				439
Asn Val Thr Val Ser Phe Arg Xaa Thr Xaa Glu Asn Ala Val Trp Ile				
120	125	130		
cga att gcc tgg gga aca cag tac				463
Arg Ile Ala Trp Gly Thr Gln Tyr				
135	140			

<210> 2431  
 <211> 225  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 30..224

<400> 2431	
ataagaaaa acataaagag agacataaa atg gga gaa gaa gtt ata cca tta	53
Met Gly Glu Glu Val Ile Pro Leu	
1	5
aga gtg cta tca aag agc gaa tgg atg gat ttg aaa aaa gag tat tta	101
Arg Val Leu Ser Lys Ser Glu Trp Met Asp Leu Lys Lys Glu Tyr Leu	
10	15
gcg cta caa aaa gct agc atg gct tct tta aaa aaa aca ata tcc caa	149
Ala Leu Gln Lys Ala Ser Met Ala Ser Leu Lys Lys Thr Ile Ser Gln	
25	30
ata aaa tca gag tca gaa atg gaa aca gac agt gga gta cct caa aac	197
Ile Lys Ser Glu Ser Glu Met Glu Thr Asp Ser Gly Val Pro Gln Asn	
45	50
act gga atg aaa aat gaa aaa aca gcc t	225
Thr Gly Met Lys Asn Glu Lys Thr Ala	
60	65

<210> 2432  
 <211> 187  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 3..185

<400> 2432	
ag atg agc gga cac agc ccc acg cgc ggg gcc atg cag gtg gcc atg	47
Met Ser Gly His Ser Pro Thr Arg Gly Ala Met Gln Val Ala Met	

1	5	10	15	
aac ggt aag gcc cgc aaa gag gcg gtg cag act gcg gct aag gaa ctc				95
Asn Gly Lys Ala Arg Lys Glu Ala Val Gln Thr Ala Ala Lys Glu Leu				
20	25	30		
ctc aag ttc gtg aac cgg agt ccc tct cct ttc cat gct gtg gct gaa				143
Leu Lys Phe Val Asn Arg Ser Pro Ser Pro Phe His Ala Val Ala Glu				
35	40	45		
tgc cgc cac cgc ctt ctc cag gct ggc ttc agt gaa ctc aag gt				187
Cys Arg His Arg Leu Leu Gln Ala Gly Phe Ser Glu Leu Lys				
50	55	60		

<210> 2433  
 <211> 385  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 111..383

<400> 2433									
atccatttgt tctcaagagg tagcaagaaa cagtatccac agtggactcc ggggctccta	60								
cagacttggc acagcttcct acagtcttga aacagccctg ttgttctgtc atg gcc	116								
	Met Ala								
	1								
agt ggg cag ttt gtg aac aaa ctg caa gag gaa gtg atc tgc ccc atc	164								
Ser Gly Gln Phe Val Asn Lys Leu Gln Glu Glu Val Ile Cys Pro Ile									
5	10								
tgc ctg gac att ctg cag aaa cct gtc acc atc gac tgt ggg cac aat	212								
Cys Leu Asp Ile Leu Gln Lys Pro Val Thr Ile Asp Cys Gly His Asn									
20	25								
ttc tgc ctc aaa tgc atc act cag att ggg gaa aca tca tgt gga ttt	260								
Phe Cys Leu Lys Cys Ile Thr Gln Ile Gly Glu Thr Ser Cys Gly Phe									
35	40								
ttc aaa tgt ccc ctc tgc aaa act tcc gta agg aag aac gca atc agg	308								
Phe Lys Cys Pro Leu Cys Lys Thr Ser Val Arg Lys Asn Ala Ile Arg									
55	60								
ttc aac tcg ctg ttg cgg aat ctg gtg gag aaa atc caa gct cta caa	356								
Phe Asn Ser Leu Leu Arg Asn Leu Val Glu Lys Ile Gln Ala Leu Gln									
70	75								
gcc tct gag gtg cag tcc aaa agg aaa ga	385								
Ala Ser Glu Val Gln Ser Lys Arg Lys									
85	90								

<210> 2434  
 <211> 196  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 17..196

&lt;400&gt; 2434

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gcggcgggcg ttgaaa atg caa tgg ggc atg tgg gat gag gag gtg ggg aag      52
          Met Gln Trp Gly Met Trp Asp Glu Glu Val Gly Lys
          1              5              10
ggt act ggg gca gag aga tgc cga tgc ata gaa aca gcg agg aga gac      100
Gly Thr Gly Ala Glu Arg Cys Arg Ser Ile Glu Thr Ala Arg Arg Asp
          15              20              25
gga gag aga cca gag act caa ggg caa aga gag acg aag gac cgg cgg      148
Gly Glu Arg Pro Glu Thr Gln Gly Gln Arg Glu Thr Lys Asp Arg Arg
          30              35              40
gag gaa gag aga gag aga cag aga gac aga ctc aca gac tgg gag gag      196
Glu Glu Glu Arg Glu Arg Gln Arg Asp Arg Leu Thr Asp Trp Glu Glu
          45              50              55              60

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&lt;210&gt; 2435

&lt;211&gt; 245

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 79..243

&lt;400&gt; 2435

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aagtgaaggc ttccgtccct ggagaggagg cgggtgccctg tatcggcctt cgtcctccgc      60
gggagctgcg gcgccaag atg agt gga gag gag aac cca gcc agc aag ccc      111
          Met Ser Gly Glu Glu Asn Pro Ala Ser Lys Pro
          1              5              10
acg ccg gtg cag gac gta cag ggc gac ggg cgc tgg atg tcc ctg cac      159
Thr Pro Val Gln Asp Val Gln Gly Asp Gly Arg Trp Met Ser Leu His
          15              20              25
cat cgg ttc gtg gct gac agc aaa gat aag gaa ccc gaa gtc gtc ttc      207
His Arg Phe Val Ala Asp Ser Lys Asp Lys Glu Pro Glu Val Val Phe
          30              35              40
atc ggg gac tcc ttg gtc cag ctc atg cac cag tgc ca      245
Ile Gly Asp Ser Leu Val Gln Leu Met His Gln Cys
          45              50              55

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&lt;210&gt; 2436

&lt;211&gt; 301

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 93..299

&lt;400&gt; 2436

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tagctttaag atcgggggag ggtaaataat gcaaaaattg cacagtggaa gaaggggtct      60
cacaaaaagc aatccatcct gtagtatagg ta atg gag ttg ggg gaa gca gct      113
          Met Glu Leu Gly Glu Ala Ala

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004220" 666ET560

tcc att ctg gat gtt tgg aac cct ttt agc ttt gtt ttg gaa tgg ccc	1	5	161
Ser Ile Leu Asp Val Trp Asn Pro Phe Ser Phe Val Leu Glu Trp Pro	10	15	
acc att ctc act gga aaa cag tgg tct gct gtg aaa ggc cag ctc tcg	20		209
Thr Ile Leu Thr Gly Lys Gln Trp Ser Ala Val Lys Gly Gln Leu Ser	25	30	
gca gcc cct gtg gtt tca gcg ctg ccg ctc tgt gtc att cag gtt gtg	35		257
Ala Ala Pro Val Val Ser Ala Leu Pro Leu Cys Val Ile Gln Val Val	40	45	
cac att gtt ttt ctt ctg act tcc aga aat aaa agt gtt tcc at	50	55	301
His Ile Val Phe Leu Leu Thr Ser Arg Asn Lys Ser Val Ser	60	65	

<210> 2437  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 70..393

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gtttctgca atg gta ttg gct tca ctc gag ctc ctt cga gag cag tgg atc	111
Met Val Leu Ala Ser Leu Glu Leu Leu Arg Glu Gln Trp Ile	
1 5 10	
cgg gcc aag tac gag cga cag gag tkc atc tac ccg gag aag cag gag	159
Arg Ala Lys Tyr Glu Arg Gln Glu Xaa Ile Tyr Pro Glu Lys Gln Glu	
15 20 25 30	
ccc tac tcg gca ggg tac cgt gag ggt ttt ctc tgg aag cgt ggc cgg	207
Pro Tyr Ser Ala Gly Tyr Arg Glu Gly Phe Leu Trp Lys Arg Gly Arg	
35 40 45	
gac aac ggg cag ttt ttg agc cgg aag ttt gtg ctg aca gaa cga gag	255
Asp Asn Gly Gln Phe Leu Ser Arg Lys Phe Val Leu Thr Glu Arg Glu	
50 55 60	
ggg gct ctg aag tat ttc aac aga aat gat gcc aag gag ccc aag gcc	303
Gly Ala Leu Lys Tyr Phe Asn Arg Asn Asp Ala Lys Glu Pro Lys Ala	
65 70 75	
gtg atg aag atc gag cac ctg aac gcc acc ttc cag ccg gcc aag atc	351
Val Met Lys Ile Glu His Leu Asn Ala Thr Phe Gln Pro Ala Lys Ile	
80 85 90	
ggc cac ccc cac ggc ctg cag gtc acc tac ctg aag gac aac	393
Gly His Pro His Gly Leu Gln Val Thr Tyr Leu Lys Asp Asn	
95 100 105	

<210> 2438  
 <211> 273  
 <212> DNA  
 <213> Homo sapiens

<220>

<221> CDS  
<222> 84..272

<400> 2438  
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tcttggtggt tctttcttgg ctt atg gat tgt tta gaa gtg cat tgc ttg gtt 113  
Met Asp Cys Leu Glu Val His Cys Leu Val  
1 5 10  
tcc aaa tat ttt cca aaa tcc cct tct gta ttt tcc aaa tgt gta ttt 161  
Ser Lys Tyr Phe Pro Lys Ser Pro Ser Val Phe Ser Lys Cys Val Phe  
15 20 25  
tcc aaa ttt tct cct gta ttt tct att ttt aat ttc att gtg att gga 209  
Ser Lys Phe Ser Pro Val Phe Ser Ile Phe Asn Phe Ile Val Ile Gly  
30 35 40  
gag cat act gtg tat gat ttc agt tgc tta aaa tgt att gag act tgt 257  
Glu His Thr Val Tyr Asp Phe Ser Cys Leu Lys Cys Ile Glu Thr Cys  
45 50 55  
ttt caa cct agc ccc c  
Phe Gln Pro Ser Pro 273  
60

<210> 2439  
<211> 370  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 199..369

<400> 2439  
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gatcataaca aactctacct cacggggctg acccgaagam tgnatgcata gcagrrcaca 120  
tggmtcagct ggccagccgg caggtcttag casgtcatms tggcggaatg accagcccac 180  
ragtcttagc aggtcgca atg gtg smt gca ggm tgt ttc tgc ctg acc agc 231  
Met Val Xaa Ala Gly Cys Phe Cys Leu Thr Ser  
1 5 10  
ctc cat tct cac ttc cgt ttc tgc ctg gat atg aca aat gtc gac ctg 279  
Leu His Ser His Phe Arg Phe Cys Leu Asp Met Thr Asn Val Asp Leu  
15 20 25  
gag ctg ttg ggg cca tct ggg cag aaa ggc tgt ycg gga atg aag tyw 327  
Glu Leu Leu Gly Pro Ser Gly Gln Lys Gly Cys Xaa Gly Met Lys Xaa  
30 35 40  
amg aga tgg aag aag aga aaa aga ggc cgg cgt ctg ggg tca t 370  
Xaa Arg Trp Lys Lys Arg Lys Arg Gly Arg Arg Leu Gly Ser  
45 50 55

<210> 2440  
<211> 253  
<212> DNA  
<213> Homo sapiens



[illegible]

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Met Ser Gly His Gly Lys Gly																
1 5																
gga aag ggt cta ggt aag ggt ggc gcc aag cgt cac cgt aag gta ttg																103
Gly Lys Gly Leu Gly Lys Gly Gly Ala Lys Arg His Arg Lys Val Leu																
10 15 20																
cgt gac aat atc caa gga atc acc aag ccc gct atc cgc mgc ctg gct																151
Arg Asp Asn Ile Gln Gly Ile Thr Lys Pro Ala Ile Arg Xaa Leu Ala																
25 30 35																
cgc cgc ggc ggc rtc aag cgt att tct ggc ctc att tat gag gaa act																199
Arg Arg Gly Gly Xaa Lys Arg Ile Ser Gly Leu Ile Tyr Glu Glu Thr																
40 45 50 55																
cgc gga gtg ctg aaa gtt ttc ctg gaa aat gta atc cgc gat gct gtc																247
Arg Gly Val Leu Lys Val Phe Leu Glu Asn Val Ile Arg Asp Ala Val																
60 65 70																
acc acg																
Thr Thr																253

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<220>  
<221> CDS  
<222> 235..453
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1585

Thr Gly Val His Thr Thr Pro Gly  
70

<210> 2442  
<211> 235  
<212> DNA  
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<220>  
<221> CDS  
<222> 26..235

<400> 2442  
caaatactag acatggaaac ttaaa atg tgc agg tgt caa agc tta aaa atc 52  
Met Cys Arg Cys Gln Ser Leu Lys Ile  
1 5  
agg tgt gtc ctc ttt aaa ggc atg tgc gat aag cct gca gtc tta acc 100  
Arg Cys Val Leu Phe Lys Gly Met Cys Asp Lys Pro Ala Val Leu Thr  
10 15 20 25  
aga cct ggt acc agt tta aca gtt cat tat act tct gtg atg agt gga 148  
Arg Pro Gly Thr Ser Leu Thr Val His Tyr Thr Ser Val Met Ser Gly  
30 35 40  
tct gtt agt ctg gta gag att aat gtt gaa att tac ttg aat tac agt 196  
Ser Val Ser Leu Val Glu Ile Asn Val Glu Ile Tyr Leu Asn Tyr Ser  
45 50 55  
tat ttg aca agc cca ctt ttt ttg gag ttt ggt gag gca 235  
Tyr Leu Thr Ser Pro Leu Phe Leu Glu Phe Gly Glu Ala  
60 65 70

<210> 2443  
<211> 464  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 255..464

<400> 2443  
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acagtaattt gtagagctga gattgaaatt cgggtgaaac ttcacatatc acattctttt 120  
tatcaggtat gttgagaata tggtttgctg aacacagaaa gcaagtagtt atctagaatt 180  
atggtccagt tgtgtaaaag cttttatatt ttaattatat atgacaataa tgggctttta 240  
cccttctttt tgag atg gca gtt tct gga ttt act ctt ggt acc tgc ata 290  
Met Ala Val Ser Gly Phe Thr Leu Gly Thr Cys Ile  
1 5 10  
ctt ctg ttg cac att agt tat gtg gct aat tat ccc aat gga aaa gta 338  
Leu Leu Leu His Ile Ser Tyr Val Ala Asn Tyr Pro Asn Gly Lys Val  
15 20 25  
aca cag tca tgc cat gga atg att cct gaa cat ggt cat agt cca cag 386  
Thr Gln Ser Cys His Gly Met Ile Pro Glu His Gly His Ser Pro Gln  
30 35 40

tct	gtt	cct	gtt	cat	gac	att	tac	gtg	agt	cag	atg	aca	ttc	agg	cca		
Ser	Val	Pro	Val	His	Asp	Ile	Tyr	Val	Ser	Gln	Met	Thr	Phe	Arg	Pro		434
45					50					55					60		
gga	gat	cag	att	gaa	ggt	acc	gtg	ctg	gga								
Gly	Asp	Gln	Ile	Glu	Gly	Thr	Val	Leu	Gly								464
				65				70									

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<210> 2444
<211> 189
<212> DNA
<213> Homo sapiens
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<220>  
<221> CDS  
<222> 21..188
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<400> 2444																		
gatggcggttt ttasmttcctg atg atg atg cac agc ctt cag cgg ggg aca ttt																		53
						Met	Met	Met	His	Ser	Leu	Gln	Arg	Gly	Thr	Phe		
					1					5					10			
aag acg cag aac acc agg tcc agg ctg cag ctg cgg grs tca sag gcg																		
Lys Thr Gln Asn Thr Arg Ser Arg Leu Gln Leu Arg Xaa Ser Xaa Ala																	101	
			15					20					25					
aag ctt gas ggg ctc agg gag gac gaa gaa cca ccc ttg aga gar gag																		
Lys Leu Xaa Gly Leu Arg Glu Asp Glu Glu Pro Pro Leu Arg Glu Glu																	149	
		30					35					40						
gca gca gca gcg gcg gca gca gma gcg gca gcr ncc cca c																		
Ala Ala Ala Ala Ala Ala Ala Xaa Ala Ala Ala Xaa Pro																	189	
	45					50				55								

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<210> 2445
<211> 275
<212> DNA
<213> Homo sapiens
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<220>  
<221> CDS  
<222> 40..273
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[illegible]

aag aca ggg aag att gta gag gag gaa gcc cag gag gac ctg gag ggc 246  
 Lys Thr Gly Lys Ile Val Glu Glu Ala Gln Glu Asp Leu Glu Gly  
 55 60 65  
 ctt aga ggc agc sra aac gag ggg ggc ta 275  
 Leu Arg Gly Ser Xaa Asn Glu Gly Gly  
 70 75

<210> 2446  
 <211> 363  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 116..361

<400> 2446  
 ggggtgggttag gayccttgtg ctgaagcata caccgggtgt ttctgtgcag tattttgagg 60  
 tctttttcaa cctattgtat ttaatctgtg awtccttata acactgacaa tcggt atg 118  
 Met

att gat ccg gat ttt gca gat aag cct aaa tta cca gaa aac tac aca 166  
 Ile Asp Pro Asp Phe Ala Asp Lys Pro Lys Leu Pro Glu Asn Tyr Thr  
 5 10 15  
 gat gaa acc tgg caa aaa ctg aaa gaa gca gtg gaa gct att cag aat 214  
 Asp Glu Thr Trp Gln Lys Leu Lys Glu Ala Val Glu Ala Ile Gln Asn  
 20 25 30  
 agt act tca att aag tac aat tta gaa gaa ctc tac cag gct gta gaa 262  
 Ser Thr Ser Ile Lys Tyr Asn Leu Glu Glu Leu Tyr Gln Ala Val Glu  
 35 40 45  
 aat ctc tgt tct tac aag att tct gca aac ttg tac aaa cag ctg aga 310  
 Asn Leu Cys Ser Tyr Lys Ile Ser Ala Asn Leu Tyr Lys Gln Leu Arg  
 50 55 60 65  
 cag atc tgc gaa gat cac atc aaa gca cag att cat caa ttc aga gag 358  
 Gln Ile Cys Glu Asp His Ile Lys Ala Gln Ile His Gln Phe Arg Glu  
 70 75 80  
 gac aa  
 Asp 363

<210> 2447  
 <211> 324  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 137..322

<400> 2447  
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 gggacctcgg cggtttgggg acgctggccg cgaagtaggg agcgcagggtg gccgctcggg 120  
 gtgagggccc tgggtc atg gag cac ttc ttg ctg gag gtg gca gcc gcg ccg 172

004220"666E7560

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Met Glu His Phe Leu Leu Glu Val Ala Ala Ala Pro
1      5      10
ctg cgg tta atc gca gcc aag aac gag aag agc cgc agt gag ttg ggc      220
Leu Arg Leu Ile Ala Ala Lys Asn Glu Lys Ser Arg Ser Glu Leu Gly
15      20      25
agg ttc ttg gcc aag cag gta aga cgt gaa ggg aga ggg aaa gcg ccg      268
Arg Phe Leu Ala Lys Gln Val Arg Arg Glu Gly Arg Gly Lys Ala Pro
30      35      40
gaa cga ctg ggt cgc ccc act agt aag ctt cct gcg ctc ccc cgc cga      316
Glu Arg Leu Gly Arg Pro Thr Ser Lys Leu Pro Ala Leu Pro Arg Arg
45      50      55      60
tac ccg cc
Tyr Pro      324

<210> 2448
<211> 201
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 25..201

<400> 2448
gacatttggtg gggcagccta cact atg gaa act ttg ctg cag aat cac cag      51
Met Glu Thr Leu Leu Gln Asn His Gln
1      5
ctc cga gac cac aac atc aga cct gga gaa agt gcc atc gtg aaa aag      99
Leu Arg Asp His Asn Ile Arg Pro Gly Glu Ser Ala Ile Val Lys Lys
10      15      20      25
aaa gct gag ctc att aaa ggg aat tac aag tgc aac gtg tgc tct cga      147
Lys Ala Glu Leu Ile Lys Gly Asn Tyr Lys Cys Asn Val Cys Ser Arg
30      35      40
acc ttc ttc tcc gaa aat ggc ctc cgg gaa cat atg cag acc cac cta      195
Thr Phe Phe Ser Glu Asn Gly Leu Arg Glu His Met Gln Thr His Leu
45      50      55
ggc ccc
Gly Pro      201

<210> 2449
<211> 183
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 6..182

<400> 2449
catca atg aga gaa gac ctt ttc aaa cag tac att gaa aaa ata gcc aag      50
Met Arg Glu Asp Leu Phe Lys Gln Tyr Ile Glu Lys Ile Ala Lys
1      5      10      15

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**005739-2**

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<220>
<221> CDS
<222> 74..244
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<210> 2451
<211> 397
<212> DNA
<213> Homo sapiens
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<220>  
<221> CDS  
<222> 175..396
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1590

ttc aac atg tgg aag gag atc cct atc ccc ttc tat ctc tcc gtc tac	273
Phe Asn Met Trp Lys Glu Ile Pro Ile Pro Phe Tyr Leu Ser Val Tyr	
20 25 30	
ttc ttt gac gtc atg aac ccc agc gag atc ctg aag ggc gag aag ccg	321
Phe Phe Asp Val Met Asn Pro Ser Glu Ile Leu Lys Gly Glu Lys Pro	
35 40 45	
cag tgc ggg agc gcg ggc cct acg tgt aca ggg agt tca ggn aca aaa	369
Gln Cys Gly Ser Ala Gly Pro Thr Cys Thr Gly Ser Ser Gly Thr Lys	
50 55 60 65	
gca aca tca cct tca aca aca acg aca c	
Ala Thr Ser Pro Ser Thr Thr Thr Thr	397
70	

<210> 2452  
 <211> 342  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 6..341

<400> 2452	
agaga atg cag tgg cca cgt ggg aca ggc atc gga gga gca ggg aga ccc	50
Met Gln Trp Pro Arg Gly Thr Gly Ile Gly Gly Ala Gly Arg Pro	
1 5 10 15	
acc agg gtc tgg gag caa ccc agg cag tgg atg ggg ctc agt ccg gtg	98
Thr Arg Val Trp Glu Gln Pro Arg Gln Trp Met Gly Leu Ser Pro Val	
20 25 30	
gat gtg gcc acg gcg ctg cct ctg caa gtg gcc ccc tcg gca gtg ccc	146
Asp Val Ala Thr Ala Leu Pro Leu Gln Val Ala Pro Ser Ala Val Pro	
35 40 45	
atg gac ctg cgc ctg gac cac cag ttc tca ctg cct gtg gca gag ccg	194
Met Asp Leu Arg Leu Asp His Gln Phe Ser Leu Pro Val Ala Glu Pro	
50 55 60	
gcc ctg cgg gag cag cag ctg cag cag gag ctc ctg gcg ctc aag cag	242
Ala Leu Arg Glu Gln Gln Leu Gln Gln Glu Leu Leu Ala Leu Lys Gln	
65 70 75	
aag cag cag atc cag agg cag atc ctc atc gct gag ttc cag agg cag	290
Lys Gln Gln Ile Gln Arg Gln Ile Leu Ile Ala Glu Phe Gln Arg Gln	
80 85 90 95	
cac gag cag ctc tcc cgg cag cac gag gcg cag tcc acg agc aca tca	338
His Glu Gln Leu Ser Arg Gln His Glu Ala Gln Ser Thr Ser Thr Ser	
100 105 110	
agc g	
Ser	342

<210> 2453  
 <211> 427  
 <212> DNA  
 <213> Homo sapiens

<220>

<221> CDS  
<222> 78..425

<400> 2453

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cttgggtgcgc cgggccgtgg tgagtccggg ctcccgtggc cgcgtgctgg gaggagactg      60
gagcccgggtt aggaaga atg gag ttg gcg act cgc tac cag atc cct aaa      110
                Met Glu Leu Ala Thr Arg Tyr Gln Ile Pro Lys
                1                5                10
gaa gtg gct gac atc ttt aac gcc ccc agt gat gat gaa gag ttt gtt      158
Glu Val Ala Asp Ile Phe Asn Ala Pro Ser Asp Asp Glu Glu Phe Val
                15                20                25
ggc ttc cga gat gat gtt ccc atg gaa acc ctc tcg tca gag gag agc      206
Gly Phe Arg Asp Asp Val Pro Met Glu Thr Leu Ser Ser Glu Glu Ser
                30                35                40
tgc gat agt ttt gac tca cta gag tca ggg aaa cag gat gtg cgc ttt      254
Cys Asp Ser Phe Asp Ser Leu Glu Ser Gly Lys Gln Asp Val Arg Phe
                45                50                55
cat tcc aaa tac ttc aca gaa gag cta aga aga att ttt ata gag gac      302
His Ser Lys Tyr Phe Thr Glu Glu Leu Arg Arg Ile Phe Ile Glu Asp
        60                65                70                75
act gac tca gag act gag gat ttt gca gga ttt acg cag agt gat ctg      350
Thr Asp Ser Glu Thr Glu Asp Phe Ala Gly Phe Thr Gln Ser Asp Leu
                80                85                90
aat gga aag act aac cca gaa gta atg gtc gtg gag tca gat ttg agt      398
Asn Gly Lys Thr Asn Pro Glu Val Met Val Val Glu Ser Asp Leu Ser
                95                100                105
gat gat ggc aaa gca tct ttg gtg agc ga
Asp Asp Gly Lys Ala Ser Leu Val Ser      427
        110                115

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<210> 2454  
<211> 445  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 230..445

<400> 2454

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tctccccgca gaggaggatc ctggaaggac gcggavtgag ggcwgggggg atgcagtggc      60
ctggacgagg tgactccaac ccggggggagc agagtccgtc acgccggcag ggaccgaggg      120
tctctgcgga gctggaggac cttttgtggg atgcctcacg gctgctgagg ggctgcagcg      180
gcagccattg tttgatgtcc tgtgactgag aaaccaggct ttaaacttt atg cct ttg      238
                Met Pro Leu
                1
gag atg gag ccc aag atg agc aaa ctg gcc ttt ggc tgt cag aga agt      286
Glu Met Glu Pro Lys Met Ser Lys Leu Ala Phe Gly Cys Gln Arg Ser
        5                10                15
tcc aca tca gat gat gac tct ggc tgt gca ttg gag gag tac gcc tgg      334
Ser Thr Ser Asp Asp Asp Ser Gly Cys Ala Leu Glu Glu Tyr Ala Trp
        20                25                30                35

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004220" 666ET560

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gtc ccc ccg ggc ctg aga cca gag cag atc cag ctc tat ttt gct tgc      382
Val Pro Pro Gly Leu Arg Pro Glu Gln Ile Gln Leu Tyr Phe Ala Cys
      40                                45                                50
tta cca gag gra aaa gtt cct tac gtt aac agc ccc gga gag aag cat      430
Leu Pro Glu Xaa Lys Val Pro Tyr Val Asn Ser Pro Gly Glu Lys His
      55                                60                                65
cgg att aaa cag ctt
Arg Ile Lys Gln Leu
      70

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<210> 2455  
 <211> 354  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 175..354

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<400> 2455
tttaataaat ggtgctggga aaagtggcta gccatatgta gaaagctgaa actggatccc      60
ttccctacac cttatacaaaa aatcaattca agatggatta aagacttaaa ctttagacct      120
aaaaccataa aaaccctaga agaaaaccta ggcaatacca ttcaggacat aggc atg      177
                                         Met
                                         1
ggc aag gac ttc atg tct aaa aca cca aaa gca atg gca aca aaa gac      225
Gly Lys Asp Phe Met Ser Lys Thr Pro Lys Ala Met Ala Thr Lys Asp
      5                                10                                15
aaa att gac aaa tgg gat cta att aaa cta aag agc ttc tgc aca gca      273
Lys Ile Asp Lys Trp Asp Leu Ile Lys Leu Lys Ser Phe Cys Thr Ala
      20                                25                                30
aaa gaa act acc atc aga gtg aac agg caa cct aca aaa tgg gag awa      321
Lys Glu Thr Thr Ile Arg Val Asn Arg Gln Pro Thr Lys Trp Glu Xaa
      35                                40                                45
att ttt gca acc tac tca tct gac aaa ggg cca
Ile Phe Ala Thr Tyr Ser Ser Asp Lys Gly Pro
50                                55                                60

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<210> 2456  
 <211> 255  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 15..254

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<400> 2456
ataaagggtga ttgt atg cat aaa aca ggt gat gag act gag ctt cac tct      50
      Met His Lys Thr Gly Asp Glu Thr Glu Leu His Ser
      1                                5                                10
tct gag aaa ggt tta aaa gta gag gaa aat att caa aag caa agt caa      98

```

Ser Glu Lys Gly Leu Lys Val Glu Glu Asn Ile Gln Lys Gln Ser Gln  
 15 20 25  
 caa aca aag ctt tct tca gat gat aaa acc gaa cga aaa agt aaa cat 146  
 Gln Thr Lys Leu Ser Ser Asp Asp Lys Thr Glu Arg Lys Ser Lys His  
 30 35 40  
 agg aat gaa agg aaa tta tca gta tta ggc aaa gat gga aag cca gtw 194  
 Arg Asn Glu Arg Lys Leu Ser Val Leu Gly Lys Asp Gly Lys Pro Val  
 45 50 55 60  
 tct gaa tat att ata aaa aca gat gag aat gtt cgt aaa gaa aac aac 242  
 Ser Glu Tyr Ile Ile Lys Thr Asp Glu Asn Val Arg Lys Glu Asn Asn  
 65 70 75  
 aaa aaa gag aga c 255  
 Lys Lys Glu Arg  
 80

<210> 2457

<211> 283

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 6..281

<400> 2457

aggaa atg gaa gcc aaa agc cag gct gaa gaa ggc gca tct ggc aaa gct 50  
 Met Glu Ala Lys Ser Gln Ala Glu Glu Gly Ala Ser Gly Lys Ala  
 1 5 10 15  
 gag aaa aag acg tct gga gaa act aag aat caa gtc aat gga aca cgg 98  
 Glu Lys Lys Thr Ser Gly Glu Thr Lys Asn Gln Val Asn Gly Thr Arg  
 20 25 30  
 gca aac aaa agt gac aac cct cgt ggg aaa aat tcc aaa gct gag aag 146  
 Ala Asn Lys Ser Asp Asn Pro Arg Gly Lys Asn Ser Lys Ala Glu Lys  
 35 40 45  
 tca tca gga gaa cag caa cag aat ggt gac ttc aaa gat ggc aaa aat 194  
 Ser Ser Gly Glu Gln Gln Gln Asn Gly Asp Phe Lys Asp Gly Lys Asn  
 50 55 60  
 aag aca gac aag aag gat cac tct aac atc gga aat gat tca aag aaa 242  
 Lys Thr Asp Lys Lys Asp His Ser Asn Ile Gly Asn Asp Ser Lys Lys  
 65 70 75  
 aca gat ggc aca aaa cag cgt tct cac ggc tca cca gcc cc 283  
 Thr Asp Gly Thr Lys Gln Arg Ser His Gly Ser Pro Ala  
 80 85 90

<210> 2458

<211> 344

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 162..344

&lt;400&gt; 2458

taa	atg	tc	ct	gg	ag	ca	ga	ag	ca	ga	ag	gg	cc	ct	ta	at	gc	ag	ct	at	at	cc	ta	aat	gg	gt	ct	ga	60
ct	gt	gt	cc	at	cc	tg	gt	ct	g	ag	ag	gg	gc	tc	tg	ca	gc	ag	ta	ca	ct	ct	ta	ga	cc	at	ca	ga	120
aa	cc	tt	tt	tg	aa	cc	ta	ag	tt	ct	gt	gc	cc	ct	gg	cc	ac	gg	gc	cc	at	g	ca	gag	cag	aga	176		
																							Met	Ala	Glu	Gln	Arg		
aca	gaa	agt	acc	ccc	atc	aca	gca	gtv	raa	cag	cct	gag	aaa	gtg	gca													224	
Thr	Glu	Ser	Thr	Pro	Ile	Thr	Ala	Val	Xaa	Gln	Pro	Glu	Lys	Val	Ala														
gct	acc	agg	cag	gag	atc	ttc	cag	gag	cag	ttg	gca	gca	gtg	cca	gag													272	
Ala	Thr	Arg	Gln	Glu	Ile	Phe	Gln	Glu	Gln	Leu	Ala	Ala	Val	Pro	Glu														
ttc	cgc	gg	ct	gg	ccc	ctc	ttc	aag	tcc	tcg	cct	gag	ccc	gtg	gsc													320	
Phe	Arg	Gly	Leu	Gly	Pro	Leu	Phe	Lys	Ser	Ser	Pro	Glu	Pro	Val	Xaa														
ctc	acc	gag	tca	gag	acg	gag	tya																					344	
Leu	Thr	Glu	Ser	Glu	Thr	Glu	Xaa																						

&lt;210&gt; 2459

&lt;211&gt; 161

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 4..159

&lt;400&gt; 2459

aaa	atg	aaa	aag	aaa	aga	aaa	gaa	aag	aaa	aga	aag	aaa	gaa	gga	aag													48
	Met	Lys	Lys	Lys	Arg	Lys	Glu	Lys	Lys	Arg	Lys	Lys	Glu	Gly	Lys													
aaa	gaa	aga	aag	aaa	gaa	aga	aag	aaa	gaa	aga	aag	aaa	gaa	aga	agg													96
Lys	Glu	Arg	Lys	Lys	Glu	Arg	Lys	Lys	Glu	Arg	Lys	Lys	Glu	Arg	Arg													
aag	gaa	gga	agg	aag	gaa	gga	agg	aag	gaa	gga	agg	mas	gma	gga	agg													144
Lys	Glu	Gly	Arg	Lys	Glu	Gly	Arg	Lys	Glu	Gly	Arg	Xaa	Xaa	Gly	Arg													
aaa	gaa	aga	aag	aga	aa																							161
Lys	Glu	Arg	Lys	Arg																								

&lt;210&gt; 2460

&lt;211&gt; 248

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 95..247

&lt;400&gt; 2460

ctaaaaacac aaaaattagc tggacatggt ggcaggtgcc tgtaatccca gctactcagg 60  
aggctgaggc aggagaattg cttgaaccca ggag atg gag gtt gca gtg agc caa 115  
Met Glu Val Ala Val Ser Gln  
1 5  
gat tgt gcc atg cca ctc cag cca ggg gga caa gag gga gac ttc acc 163  
Asp Cys Ala Met Pro Leu Gln Pro Gly Gly Gln Glu Gly Asp Phe Thr  
10 15 20  
tcg aaa gac aga cag mca ggc tak tac gtt ttc cac aaw ttt caw ttt 211  
Ser Lys Asp Arg Gln Xaa Gly Xaa Tyr Val Phe His Xaa Phe Xaa Phe  
25 30 35  
tac tct ctt ccc cca cca mac aca cac aca cac aca g 248  
Tyr Ser Leu Pro Pro Pro Xaa Thr His Thr His Thr  
40 45 50

&lt;210&gt; 2461

&lt;211&gt; 248

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 95..247

&lt;400&gt; 2461

gtttctattc agtgtdatac tagaagtact acccagagca gtgacactaa aaagcaacca 60  
cacaacaag tctgcataat aactagctaa catc atg atg aca gga tca aat cta 115  
Met Met Thr Gly Ser Asn Leu  
1 5  
cac ata tca ata caa gcc ttg aat ata aat gag cta aat gtc cca att 163  
His Ile Ser Ile Gln Ala Leu Asn Ile Asn Glu Leu Asn Val Pro Ile  
10 15 20  
ata aaa cac aca gtg gta agc tgg ata agg aac caa gac cca ttg gca 211  
Ile Lys His Thr Val Val Ser Trp Ile Arg Asn Gln Asp Pro Leu Ala  
25 30 35  
tgc tgt ctt caa gag acc tct cac atg caa aga cac a 248  
Cys Cys Leu Gln Glu Thr Ser His Met Gln Arg His  
40 45 50

&lt;210&gt; 2462

&lt;211&gt; 361

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 89..361

&lt;400&gt; 2462

gaaaccgttt ggcaggggcg gcggtggcgg cggcgttggc ggcagmggcc gagcggaaag 60  
cttgctgtg gtggtgccag attggatt atg gaa gtg gga agt gaa gaa gaa 112  
Met Glu Val Gly Ser Glu Glu Glu

004220-6667560

aaa tgg gag aag ctg gat gca gaa ttt gat cac ttt gtg gtt gat atg	1	5	
Lys Trp Glu Lys Leu Asp Ala Glu Phe Asp His Phe Val Val Asp Met			160
10 15 20			
aag ccc ttt gtt cta aaa tta cct cat agg aca gaa cgg cag arg tgt			208
Lys Pro Phe Val Leu Lys Leu Pro His Arg Thr Glu Arg Gln Xaa Cys			
25 30 35 40			
gct ctt tgg att aga aag ctg tgc gaa cct tca gga aca ggt gca gga			256
Ala Leu Trp Ile Arg Lys Leu Cys Glu Pro Ser Gly Thr Gly Ala Gly			
45 50 55			
ata atg ggg agg aag aat cgg aac ctg tat gca aaa ttg tta ttg cat			304
Ile Met Gly Arg Lys Asn Arg Asn Leu Tyr Ala Lys Leu Leu Leu His			
60 65 70			
atg ctt aaa cga ggt gcg ctt gaa ggc cct ttt aca cac cga cct gaa			352
Met Leu Lys Arg Gly Ala Leu Glu Gly Pro Phe Thr His Arg Pro Glu			
75 80 85			
ccc ggg can			361
Pro Gly Xaa			
90			

<210> 2463  
 <211> 251  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 98..250

<400> 2463		
agcgggcggc cgcggtctgtg ccctctccta ctctcaccg cgcgascggh ggaaccagta		60
gccgcggctg cttcggttgc cgcggtcggg ggtcgtt atg gat tct cca tgg gac		115
Met Asp Ser Pro Trp Asp		
1 5		
gag ttg gct ctg gcc ttc tcc cgc acg tcc atg twt ccc ttt ttt gac		163
Glu Leu Ala Leu Ala Phe Ser Arg Thr Ser Met Xaa Pro Phe Phe Asp		
10 15 20		
atc gcg cac tat cta gtg tca gtg atg gcg gtg aaa cgt cag cmg gga		211
Ile Ala His Tyr Leu Val Ser Val Met Ala Val Lys Arg Gln Xaa Gly		
25 30 35		
gca gct gca ttg gca tgg aag aat cct att tca agc tgg t		251
Ala Ala Ala Leu Ala Trp Lys Asn Pro Ile Ser Ser Trp		
40 45 50		

<210> 2464  
 <211> 282  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 119..280

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<400> 2464  
 ctgtactagt taacattcca accaatattg tgtaatagtt tcattttctc cacatccatg 60  
 ccagcatttg ttattttttg ttttttggtt tgaaaatagc cattctaact gaggtggg 118  
 atg ata att cat tgt gat ttc aat ttg cat ttc cat gat gat agt gat 166  
 Met Ile Ile His Cys Asp Phe Asn Leu His Phe His Asp Asp Ser Asp  
 1 5 10 15  
 gtt gat cag ttt ttc aca tat ttg ttg gtc att tct atg tct tct ttt 214  
 Val Asp Gln Phe Phe Thr Tyr Leu Leu Val Ile Ser Met Ser Ser Phe  
 20 25 30  
 gag aaa tgt ctg ttc aga tca ttt gcc cat tgc ata atc aga tta tta 262  
 Glu Lys Cys Leu Phe Arg Ser Phe Ala His Cys Ile Ile Arg Leu Leu  
 35 40 45  
 tta tta tta ttt tgc ttt ga  
 Leu Leu Leu Phe Cys Phe 282  
 50

<210> 2465  
 <211> 218  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 64..216

<400> 2465  
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 gga atg gaa tgg aat gga atc aac tcg att aca ttc gaa tgg aat gga 108  
 Met Glu Trp Asn Gly Ile Asn Ser Ile Thr Phe Glu Trp Asn Gly  
 1 5 10 15  
 atg gaa tta aaa cga ata gaa tgg aat gga atg gaa tgg aac gga acg 156  
 Met Glu Leu Lys Arg Ile Glu Trp Asn Gly Met Glu Trp Asn Gly Thr  
 20 25 30  
 gaa tgg aat gga atg gaa tgg aat gga atg gaa tgg aat gga acg gaa 204  
 Glu Trp Asn Gly Met Glu Trp Asn Gly Met Glu Trp Asn Gly Thr Glu  
 35 40 45  
 cgg aac gga gtg ha  
 Arg Asn Gly Val 218  
 50

<210> 2466  
 <211> 158  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 5..157

<400> 2466  
 ccct atg gtg gtg gtt atg gat ctg gtg gtg gaa gtg gtg gat atg gta 49

Met Val Val Val Met Asp Leu Val Val Glu Val Val Asp Met Val  
1 5 10 15  
gca gaa ggt tct aaa aac agc aga aaa ggg ttg aat gag aac cct act 97  
Ala Glu Gly Ser Lys Asn Ser Arg Lys Gly Leu Asn Glu Asn Pro Thr  
20 25 30  
tgc cta aat gag gaa tgt ctt tcc tac cat cta aaa tac gaa ggt ttc 145  
Cys Leu Asn Glu Glu Cys Leu Ser Tyr His Leu Lys Tyr Glu Gly Phe  
35 40 45  
tgg ccg ggt act g 158  
Trp Pro Gly Thr  
50

<210> 2467  
<211> 419  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 217..417

<400> 2467  
tttttatttt tattttgttt tattttgaga tagtgtctct gttgcttagt ctgagtgcag 60  
tggtgcaatc ttgggtcact gcaagctccg cctcccgggt tcacaccatt ctctgcctc 120  
agcctctcca gtagctggga ctacagggcg ctgccaccat gcccggataa ttttttttat 180  
ttttattttt atttttagta gagatggggg ttcacc atg tta gcc agg ntg gtc 234  
Met Leu Ala Arg Xaa Val  
1 5  
tcg atc tcc tgc atc ccc ctt ctt tcc agc cct agc tca ggc cca tcg 282  
Ser Ile Ser Cys Ile Pro Leu Leu Ser Ser Pro Ser Ser Gly Pro Ser  
10 15 20  
tcc cca gct gat gtc gcc ctg tct gca cga tgc ctg ggc acc tac tcc 330  
Ser Pro Ala Asp Val Ala Leu Ser Ala Arg Cys Leu Gly Thr Tyr Ser  
25 30 35  
aca ctc ctc act ggc ctc agg ccc cac cag ccc tgc ctc gag cta gcc 378  
Thr Leu Leu Thr Gly Leu Arg Pro His Gln Pro Cys Leu Glu Leu Ala  
40 45 50  
cct cca ccc gtc atc act cct gcc aga ctc cag atg tcc aa 419  
Pro Pro Pro Val Ile Thr Pro Ala Arg Leu Gln Met Ser  
55 60 65

<210> 2468  
<211> 176  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 22..174

<400> 2468  
atgatgctgc tgtgaacatt c atg ttc gtg att tta tgt gga cat aag att 51

	Met	Phe	Val	Ile	Leu	Cys	Gly	His	Lys	Ile		
	1				5					10		
cca	tat	gag	aag	ttt	gtg	ttt	aaa	cgt	ttg	aga	aac	tgg
Pro	Tyr	Glu	Lys	Phe	Val	Phe	Lys	Arg	Leu	Arg	Asn	Trp
			15					20				25
cca	aag	tgg	ctg	tac	att	tta	cat	ttt	cat	ggg	caa	tgg
Pro	Lys	Trp	Leu	Tyr	Ile	Leu	His	Phe	His	Gly	Gln	Trp
			30				35				40	
cca	gtt	ttg	cca	cat	cct	tgc	caa	cac	cg			
Pro	Val	Leu	Pro	His	Pro	Cys	Gln	His				
		45				50						

99

147

176

<210> 2469  
 <211> 180  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 27..179

<400> 2469	
aatggaatgg attcaacttg aatgga atg gaa aga atg gaa tca aca cga gtg	53
	Met Glu Arg Met Glu Ser Thr Arg Val
	1 5
gaa ggg cat gga ttg gaa tgc aat gga atg gaa tca acc cga gta cag	101
Glu Gly His Gly Leu Glu Cys Asn Gly Met Glu Ser Thr Arg Val Gln	
10 15 20 25	
ggg aat gga atg gga atg gaa tgc aat gga atg gaa tca tcc gta atg	149
Gly Asn Gly Met Gly Met Glu Cys Asn Gly Met Glu Ser Ser Val Met	
30 35 40	
gaa tgg aaa gga atg gaa tgg aat gga atg g	180
Glu Trp Lys Gly Met Glu Trp Asn Gly Met	
45 50	

<210> 2470  
 <211> 261  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 22..261

<400> 2470	
atccacatcg tgtctaacta c atg gat ttt aat gaa gat ggt ttt ctc cag	51
	Met Asp Phe Asn Glu Asp Gly Phe Leu Gln
	1 5 10
gga ttt aag ggc cag ctg ata cac aca tac aac aag aac agc tct gtg	99
Gly Phe Lys Gly Gln Leu Ile His Thr Tyr Asn Lys Asn Ser Ser Val	
15 20 25	
tgt gag aac tgt ggt tac ttc cag caa ctt gag ggc aaa acc aat gtc	147



Cys Glu Asn Cys Gly Tyr Phe Gln Gln Leu Glu Gly Lys Thr Asn Val  
30 35 40  
atc ctg ctg gga gac tct atc ggg gac ctc acc atg gcc gat ggg gtt 195  
Ile Leu Leu Gly Asp Ser Ile Gly Asp Leu Thr Met Ala Asp Gly Val  
45 50 55  
cct ggt gtg cag aac att ctc aaa att ggc ttc ctg aat gac aag gtg 243  
Pro Gly Val Gln Asn Ile Leu Lys Ile Gly Phe Leu Asn Asp Lys Val  
60 65 70  
gag gag cgg cgg gag act 261  
Glu Glu Arg Arg Glu Thr  
75 80

<210> 2471

<211> 161

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 6..161

<400> 2471

ccaaa atg act aad agt ctc cac tac gat tta cct ata ggg gtc ttc caa 50  
Met Thr Xaa Ser Leu His Tyr Asp Leu Pro Ile Gly Val Phe Gln  
1 5 10 15  
agg ctc caa gct gct atg caa gct gct ctg cca ctt ggg cca tat gat 98  
Arg Leu Gln Ala Ala Met Gln Ala Ala Leu Pro Leu Gly Pro Tyr Asp  
20 25 30  
cca gta tat cca atg gta ttt gag gtg tca gtg gca gac agg gat gct 146  
Pro Val Tyr Pro Met Val Phe Glu Val Ser Val Ala Asp Arg Asp Ala  
35 40 45  
gtk kgg agc ctt tgg  
Val Xaa Ser Leu Trp 161  
50

<210> 2472

<211> 396

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 84..395

<400> 2472

atcggttctga agtctccagc ctgagttcag aggccctga gaccctgag agcctgggca 60  
gtccagcctc ctctccagt ctg atg agc ccc ttg gaa cct ggg gat ccc agc 113  
Met Ser Pro Leu Glu Pro Gly Asp Pro Ser  
1 5 10  
caa gcc cca ccc aac tct gaa gag ggc ctc cga gag ccc cca ggc acc 161  
Gln Ala Pro Pro Asn Ser Glu Glu Gly Leu Arg Glu Pro Pro Gly Thr  
15 20 25

tcc aga ccc agc ctg aca tcc ggg acc acc cct tcg gag atg tac ctc	209
Ser Arg Pro Ser Leu Thr Ser Gly Thr Thr Pro Ser Glu Met Tyr Leu	
30 35 40	
ccc gtc aga ttc agc tcc gag agc act cgc tcc tat cgg cgg ggg ncg	257
Pro Val Arg Phe Ser Ser Glu Ser Thr Arg Ser Tyr Arg Arg Gly Xaa	
45 50 55	
cgg asc ctg aag atg gtc cct cag cca ggc agc ctc tgc cca gaa gga	305
Arg Xaa Leu Lys Met Val Pro Gln Pro Gly Ser Leu Cys Pro Glu Gly	
60 65 70	
acg tgc cgg ttg gca tca ctg aag gag atg gct caa gga ctg gga gtc	353
Thr Cys Arg Leu Ala Ser Leu Lys Glu Met Ala Gln Gly Leu Gly Val	
75 80 85 90	
tcc cag caa gtt ctg tgc act ttt gca aga cta gct cct tgc t	396
Ser Gln Gln Val Leu Cys Thr Phe Ala Arg Leu Ala Pro Cys	
95 100	

<210> 2473  
 <211> 275  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 20..274

<400> 2473	
tcgcccaggc tggagtgca atg gcg tgg tct cag ctc gct gca acc tct gcc	52
Met Ala Trp Ser Gln Leu Ala Ala Thr Ser Ala	
1 5 10	
tcc cag gtt cag gtg att ctc ctg cct cag cct cag cta att ttt ttt	100
Ser Gln Val Gln Val Ile Leu Leu Pro Gln Pro Gln Leu Ile Phe Phe	
15 20 25	
gca ttt tta gta gag atg ggg ttt cac cat gtc agc cag gct ggt ctc	148
Ala Phe Leu Val Glu Met Gly Phe His His Val Ser Gln Ala Gly Leu	
30 35 40	
gaa ctc ctg gcc tca agt gat ctg cct gtc tct gcc tcc caa gat gct	196
Glu Leu Leu Ala Ser Ser Asp Leu Pro Val Ser Ala Ser Gln Asp Ala	
45 50 55	
agg ctt aac agg tgt gag cca ccg tgc ccg gct gga agg ggt ctt gaa	244
Arg Leu Asn Arg Cys Glu Pro Pro Cys Pro Ala Gly Arg Gly Leu Glu	
60 65 70 75	
tca cat cct aaa tat gtg tct cca ggg gcg a	275
Ser His Pro Lys Tyr Val Ser Pro Gly Ala	
80 85	

<210> 2474  
 <211> 196  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 33..194

&lt;400&gt; 2474

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attataagtg gtcctcggcg gattcctgta ac atg agt gga ttg att acc atc      53
                               Met Ser Gly Leu Ile Thr Ile
                               1           5
gtg gta ctc ctt ggg atc gcc ttt gta gtc tat aag ctg ttc ctg agt      101
Val Val Leu Leu Gly Ile Ala Phe Val Val Tyr Lys Leu Phe Leu Ser
      10           15           20
gac ggg cag tat tct cct cca ccg tac tct gag tat cct cca ttt tcc      149
Asp Gly Gln Tyr Ser Pro Pro Pro Tyr Ser Glu Tyr Pro Pro Phe Ser
      25           30           35
cac cgt tac cag aga ttc acc aac tca gca gga cct cct ccc ccc aa      196
His Arg Tyr Gln Arg Phe Thr Asn Ser Ala Gly Pro Pro Pro Pro
      40           45           50

```

&lt;210&gt; 2475

&lt;211&gt; 190

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 38..190

&lt;400&gt; 2475

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tatgatacat acataacctc caaagagtgg caataaaa atg aac agc cat aaa gct      55
                               Met Asn Ser His Lys Ala
                               1           5
atc act cta ctt aaa aaa ata aac atg gcc agt gct agt gaa gcc cct      103
Ile Thr Leu Leu Lys Lys Ile Asn Met Ala Ser Ala Ser Glu Ala Pro
      10           15           20
gct gtc cct ccc aga tta aat ccc atc cta ccc cca gta ccc aga agt      151
Ala Val Pro Pro Arg Leu Asn Pro Ile Leu Pro Pro Val Pro Arg Ser
      25           30           35
aac cat cat cct agc ttc ttg ttg atc tgc ccc ctg cct      190
Asn His His Pro Ser Phe Leu Leu Ile Cys Pro Leu Pro
      40           45           50

```

&lt;210&gt; 2476

&lt;211&gt; 340

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 122..340

&lt;400&gt; 2476

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tagaatgcaa gatagtttcw tggcaccggg catggtggct cgtgcctgta gtcccagcac      60
tttgggagac cgaggcaggc agatgacttg agctcacgag tttgagaccg gccttgga      120
c atg ggg aga cac cat ccc cca ctt ccc gtg tct gca aac act atg aaa      169

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Met Gly Arg His His Pro Pro Leu Pro Val Ser Ala Asn Thr Met Lys  
 1 5 10 15  
 att agc cag gca tgg agt tgt gtg ctt gtg gcc cca gct acg tgg gag 217  
 Ile Ser Gln Ala Trp Ser Cys Val Leu Val Ala Pro Ala Thr Trp Glu  
 20 25 30  
 gct gag gtt ggg gat ggc ttg agc ctg gaa ggc aga ggg tgc aac gag 265  
 Ala Glu Val Gly Asp Gly Leu Ser Leu Glu Gly Arg Gly Cys Asn Glu  
 35 40 45  
 cct gga ttg tac cac tgc act cca tcc tgg gag aca gaa aca gkg ctt 313  
 Pro Gly Leu Tyr His Cys Thr Pro Ser Trp Glu Thr Glu Thr Xaa Leu  
 50 55 60  
 gtc tca aac aaa aca aaa caa aac cac 340  
 Val Ser Asn Lys Thr Lys Gln Asn His  
 65 70

<210> 2477

<211> 344

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 28..342

<400> 2477

taattaaacc gaatagaatg gagtgga atg gaa tgg aac gga aca gaa cgg aac 54  
 Met Glu Trp Asn Gly Thr Glu Arg Asn  
 1 5  
 gga acg gaa cgg agt gna atg gaa tgg aat gga att gta tgg aat gga 102  
 Gly Thr Glu Arg Ser Xaa Met Glu Trp Asn Gly Ile Val Trp Asn Gly  
 10 15 20 25  
 atg gaa tgg tac gga ata gaa tgg aat gga aag aat tgg aat gga atg 150  
 Met Glu Trp Tyr Gly Ile Glu Trp Asn Gly Lys Asn Trp Asn Gly Met  
 30 35 40  
 gaa tgc aat gga atg gaa tgg aat gga atg gaa tca acc cga gtg cag 198  
 Glu Ser Asn Gly Met Glu Trp Asn Gly Met Glu Ser Thr Arg Val Gln  
 45 50 55  
 ggg aat gta atg gaa cgg aat gca atg gaa tgg aat cat ccg gaa tgg 246  
 Gly Asn Val Met Glu Arg Asn Ala Met Glu Trp Asn His Pro Glu Trp  
 60 65 70  
 aat gga atg gaa tgg aat gga atg caa tgg aat gga atc aac ccg agc 294  
 Asn Gly Met Glu Trp Asn Gly Met Gln Trp Asn Gly Ile Asn Pro Ser  
 75 80 85  
 gca atg gaa tgg agt gga atg gaa tgg aat gta aat gga aca acc cga 342  
 Ala Met Glu Trp Ser Gly Met Glu Trp Asn Val Asn Gly Thr Thr Arg  
 90 95 100 105  
 aa 344

<210> 2478

<211> 160

<212> DNA

<213> Homo sapiens

<220>  
 <221> CDS  
 <222> 1..159

<400> 2478  
 atg tca ggt ttg ttt aaa aca gca aga gag gcc ttg act gag ttg gat 48  
 Met Ser Gly Leu Phe Lys Thr Ala Arg Glu Ala Leu Thr Glu Leu Asp  
 1 5 10 15  
 gcc cct gct ccc att cag atg gtc ccc aca aca aag gaa cgg aat ggc 96  
 Ala Pro Ala Pro Ile Gln Met Val Pro Thr Thr Lys Glu Arg Asn Gly  
 20 25 30  
 agt gga gga gac cag tgt ggt tta gag atg cra atc atc acg cgt tat 144  
 Ser Gly Gly Asp Gln Cys Gly Leu Glu Met Xaa Ile Ile Thr Arg Tyr  
 35 40 45  
 gga gaa aac aga cac c  
 Gly Glu Asn Arg His 160  
 50

<210> 2479  
 <211> 225  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 3..224

<400> 2479  
 ca atg gaa tgg amt gga aag gaa tgg aat gga atg gaa tgg aaa gga 47  
 Met Glu Trp Xaa Gly Lys Glu Trp Asn Gly Met Glu Trp Lys Gly  
 1 5 10 15  
 atg cct tca aac cga atg gaa ttg aaa gga atg gaa tca aca cga gtg 95  
 Met Pro Ser Asn Arg Met Glu Leu Lys Gly Met Glu Ser Thr Arg Val  
 20 25 30  
 gaa tgg aat gca atg gaa tgg aay yga atg gaa tgg aat gcc atg ata 143  
 Glu Trp Asn Ala Met Glu Trp Asn Xaa Met Glu Trp Asn Ala Met Ile  
 35 40 45  
 cgg aat aga atg gaa tgg aac gaa atg gaa tgg aat gga atg gaa tgg 191  
 Arg Asn Arg Met Glu Trp Asn Glu Met Glu Trp Asn Gly Met Glu Trp  
 50 55 60  
 aat gga atc gtt ccg agt gga ata gga ggg aga k 225  
 Asn Gly Ile Val Pro Ser Gly Ile Gly Gly Arg  
 65 70

<210> 2480  
 <211> 233  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 3..233

Q 57. How many times did you see the defendant in the last 12 months?

<210> 2481

<212> DNA

<213> Home

1000

$\langle 220 \rangle$

<221> CDS

<222> 35..193

<400> 2481

<210> 2482

<211> 382

<212> DNA

<213> Homo sapiens

**<220>**

<221> CDS

<222> 172..381

1606

004220" 66666666

gccactcttt ccargttcct tagctgtccc tttagacagg gcttctcagc cagcactggt 60  
 gaggtcggga ctggacactt ccttggtgtg rbsgcgcct gtgtgtcata sgatgttttag 120  
 cagcatctgt gcctccctca gtggacgcct gtagcaccag ggctcccggg c atg aca 177  
 Met Thr

1  
 gcc gga aat gtc ccc tgg cag gca acg gtg acc cca gtt gag aag cac 225  
 Ala Gly Asn Val Pro Trp Gln Ala Thr Val Thr Pro Val Glu Lys His  
 5 10 15

tgc gtt atg tct gtc caa tta cct tcc cag aag cat cgg gcc tgc acc 273  
 Cys Val Met Ser Val Gln Leu Pro Ser Gln Lys His Arg Ala Cys Thr  
 20 25 30

cgg tgg agc ttt ggc tac atc tcc ttg agc ccc tct gtg cct gtc tgc 321  
 Arg Trp Ser Phe Gly Tyr Ile Ser Leu Ser Pro Ser Val Pro Val Cys  
 35 40 45 50

agc ctg gtc tcg gtg ccg att ggg aaa gaa tcc ttt gga gtg ccc tcc 369  
 Ser Leu Val Ser Val Pro Ile Gly Lys Glu Ser Phe Gly Val Pro Ser  
 55 60 65

ctc ccc cgg tgc a 382  
 Leu Pro Arg Cys  
 70

<210> 2483

<211> 278

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 25..276

<400> 2483

acggagctgg gcgcccctgt agaa atg atc cag ctg ctg caa act tcc tgg 51  
 Met Ile Gln Leu Leu Gln Thr Ser Trp  
 1 5

gag gat cga ttc cga atc tgc ctg agc ctg ggc cgc ctc ctc cac cac 99  
 Glu Asp Arg Phe Arg Ile Cys Leu Ser Leu Gly Arg Leu Leu His His  
 10 15 20 25

ctg gcc cac tcc cca ctg ggc tcc gtc act ctg ctg gac ttc cgc cct 147  
 Leu Ala His Ser Pro Leu Gly Ser Val Thr Leu Leu Asp Phe Arg Pro  
 30 35 40

cgg cag ttt gtg ctg gtg gat ggg gag ctc aaa gtg acg gac ctg gat 195  
 Arg Gln Phe Val Leu Val Asp Gly Glu Leu Lys Val Thr Asp Leu Asp  
 45 50 55

gac gca cgt gtg gag gag acg ccg tgt gca ggc agc acc gac tgc ata 243  
 Asp Ala Arg Val Glu Glu Thr Pro Cys Ala Gly Ser Thr Asp Cys Ile  
 60 65 70

ctc gag ttt ccg gcc agg aac ttc acc cta ccc tt 278  
 Leu Glu Phe Pro Ala Arg Asn Phe Thr Leu Pro  
 75 80

<210> 2484

<211> 247

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 38..247

<400> 2484

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ggatggaagg attttagat ggttggtcat tggatca atg gat gga tgg ata gaa      55
                               Met Asp Gly Trp Ile Glu
                               1           5
gtg tgg gag tbt tat ttt tta ttt att tta ttt tat ttt att tca ttt      103
Val Trp Glu Xaa Tyr Phe Leu Phe Ile Leu Phe Tyr Phe Ile Ser Phe
          10           15           20
tta ttt gag atg gag tct cac tct gtc acc cag gct gga gtg caa tgg      151
Leu Phe Glu Met Glu Ser His Ser Val Thr Gln Ala Gly Val Gln Trp
          25           30           35
cac aat ctc agc tca ctg caa gct ccg cct ccc ggg ttc aca cca ttc      199
His Asn Leu Ser Ser Leu Gln Ala Pro Pro Pro Gly Phe Thr Pro Phe
          40           45           50
tct cgc ctc agc ctc ccg agt agc tgg gac tac agg cgc ccg cca cct      247
Ser Arg Leu Ser Leu Pro Ser Ser Trp Asp Tyr Arg Arg Pro Pro Pro
55           60           65           70
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<210> 2485

<211> 243

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 18..242

<400> 2485

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aatggagwtg gwwtggm atg gaa tgg hat ggm aca aca cga atg gha tgg      50
                               Met Glu Trp Xaa Gly Thr Thr Arg Met Xaa Trp
                               1           5           10
hat gta atg gag agt aag gga gtt gaa tgg aat caa ccc gaa tgt agt      98
Xaa Val Met Glu Ser Lys Gly Val Glu Trp Asn Gln Pro Glu Cys Ser
          15           20           25
gga atg gaa tgg aac gga atg gaa tgg aat gga ttg caa tgg aat gga      146
Gly Met Glu Trp Asn Gly Met Glu Trp Asn Gly Leu Gln Trp Asn Gly
          30           35           40
atc aac ccg aat aca atg gaa tgg aat gga atg gaa tgg aat gcc ttc      194
Ile Asn Pro Asn Thr Met Glu Trp Asn Gly Met Glu Trp Asn Ala Phe
          45           50           55
aaa ccg aat gga atg gaa agg aat gga atc aac acg agt gga atg gaa t      243
Lys Pro Asn Gly Met Glu Arg Asn Gly Ile Asn Thr Ser Gly Met Glu
60           65           70           75
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<210> 2486

<211> 271

<212> DNA



<213> Homo sapiens

<220>

<221> CDS

<222> 55..270

<400> 2486

aggatccaat ttaattctgc tacatgtggg tatctaattt tcctagcagc attt atg 57  
Met  
1  
acg gtc ctt tcc cca ttt tat att att agc acc ttt tta aaa gat cag 105  
Thr Val Leu Ser Pro Phe Tyr Ile Ile Ser Thr Phe Leu Lys Asp Gln  
5 10 15  
ttg acc ata aaa ttt att tta att tat ttc tgg aat ctc tct ttt ctt 153  
Leu Thr Ile Lys Phe Ile Leu Ile Tyr Phe Trp Asn Leu Ser Phe Leu  
20 25 30  
ttc ttt ttt cct ttc ctt tcc tat cct ttc ctt tct ttt cct ttc ttt 201  
Phe Phe Phe Pro Phe Leu Ser Tyr Pro Phe Leu Ser Phe Pro Phe Phe  
35 40 45  
ctt ttt ttt ctg gaa acc tgg tct ttc tct gtc acc cag gct gga atg 249  
Leu Phe Phe Leu Glu Thr Trp Ser Phe Ser Val Thr Gln Ala Gly Met  
50 55 60 65  
aag tgg tgc aat cac cgg tca c  
Lys Trp Cys Asn His Arg Ser 271  
70

<210> 2487

<211> 203

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 27..203

<400> 2487

gagcaagact ccgtctcaaa acacac atg cgc gga ctg aaa ggt gtg gca att 53  
Met Arg Gly Leu Lys Gly Val Ala Ile  
1 5  
tgt ccc atg tca cag atg aaa cgg ggg ctc agg gcc ctt ctg cgc tgg 101  
Cys Pro Met Ser Gln Met Lys Arg Gly Leu Arg Ala Leu Leu Arg Trp  
10 15 20 25  
ccc agg ttg cac gcc tca tgt gca ctt atg tca agc agg gat cag agg 149  
Pro Arg Leu His Ala Ser Cys Ala Leu Met Ser Ser Arg Asp Gln Arg  
30 35 40  
ctg cct agc tgg gcc cgt gct gtc tgc tgc gcc agg gcc aca cac aca 197  
Leu Pro Ser Trp Ala Arg Ala Val Cys Cys Ala Arg Ala Thr His Thr  
45 50 55  
cac aca  
His Thr 203

<210> 2488

<211> 291  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 99..290

<400> 2488  
 caactcgatt ggaatggaat ggaatggaat ggaatggaat taacccgaat agaatggaat 60  
 ggaatggaat ggaacggaac ggaatgtaat gtaatgga atg gaa tgg aat gga atg 116  
 Met Glu Trp Asn Gly Met  
 1 5  
 gaa tca act cga ctg cag ggg aat gga atg gaa tgg aat gca atg gaa 164  
 Glu Ser Thr Arg Leu Gln Gly Asn Gly Met Glu Trp Asn Ala Met Glu  
 10 15 20  
 tgg att caa ctt gaa tgg aat gga aag aat gga atc aac acg agt gca 212  
 Trp Ile Gln Leu Glu Trp Asn Gly Lys Asn Gly Ile Asn Thr Ser Ala  
 25 30 35  
 atg gac tgg aga gga atg gaa tgg aat gca acn daa cgg aat gga atg 260  
 Met Asp Trp Arg Gly Met Glu Trp Asn Ala Thr Xaa Arg Asn Gly Met  
 40 45 50  
 gaa tgg aat gga atg gaa tgg aac dra acc c 291  
 Glu Trp Asn Gly Met Glu Trp Asn Xaa Thr  
 55 60

<210> 2489  
 <211> 256  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 84..254

<400> 2489  
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 gtgagaccct gtcactactg aaa atg caa gaa att agc cgg gcg tgg tgg cgg 113  
 Met Gln Glu Ile Ser Arg Ala Trp Trp Arg  
 1 5 10  
 gcg cct gtg gtc tca gct gca tgg gag gct gag gca gga gaa tgg cgt 161  
 Ala Pro Val Val Ser Ala Ala Trp Glu Ala Glu Ala Gly Glu Trp Arg  
 15 20 25  
 gaa ccc ggg agg cgg ast tgc agt gag cgg aga tct tgc cac tgc act 209  
 Glu Pro Gly Arg Arg Xaa Cys Ser Glu Arg Arg Ser Cys His Cys Thr  
 30 35 40  
 cca gcc tgg gtg aca gag cca gac tcc atc tca aaa aaa aaa aa 256  
 Pro Ala Trp Val Thr Glu Pro Asp Ser Ile Ser Lys Lys Lys Lys  
 45 50 55

<210> 2490  
 <211> 189

<212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 8..187

<400> 2490  
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           1                          5                          10  
 caa ccc gag tgc agg gga atg gaa tgg aat gga atg caa tgt aat gga 97  
 Gln Pro Glu Cys Arg Gly Met Glu Trp Asn Gly Met Gln Cys Asn Gly  
 15                          20                          25                          30  
 atc atc cgg aat gga atg gga tgg aat gga atg gaa tgg vmt gga atg 145  
 Ile Ile Arg Asn Gly Met Gly Trp Asn Gly Met Glu Trp Xaa Gly Met  
                           35                          40                          45  
 gaa tgg aat gga atc aac gcg agt gca ggg gaa tgg aat gga aa 189  
 Glu Trp Asn Gly Ile Asn Ala Ser Ala Gly Glu Trp Asn Gly  
                           50                          55                          60

<210> 2491  
 <211> 190  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 8..190

<400> 2491  
 caatgga atg gaa tgg aat gga aca gaa tgg agt gga atg gaa tsg aat 49  
           Met Glu Trp Asn Gly Thr Glu Trp Ser Gly Met Glu Xaa Asn  
           1                          5                          10  
 caa ccc gar tgc agg gga atg gaa tgg aat gga atg caa tgt aat gga 97  
 Gln Pro Glu Cys Arg Gly Met Glu Trp Asn Gly Met Gln Cys Asn Gly  
 15                          20                          25                          30  
 atc atc cgg aat sga atg gga tkg aat gga atg sma tkg aat gga atg 145  
 Ile Ile Arg Asn Xaa Met Gly Xaa Asn Gly Met Xaa Xaa Asn Gly Met  
                           35                          40                          45  
 gmm atg gaa tgg aat caa cgc gag tgc asg gga atg gaa tgg maa 190  
 Xaa Met Glu Trp Asn Gln Arg Glu Cys Xaa Gly Met Glu Trp Xaa  
                           50                          55                          60

<210> 2492  
 <211> 221  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 65..220

<400> 2492  
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agct atg ccc tcc cct cag aga tgg agt cta cag agg cag gca ggc ctc 109  
Met Pro Ser Pro Gln Arg Trp Ser Leu Gln Arg Gln Ala Gly Leu  
1 5 10 15  
att agc tgc ggt ggg act cca ccc agt tgc acc ttc ccg gcc act ttg 157  
Ile Ser Cys Gly Gly Thr Pro Pro Ser Ser Thr Phe Pro Ala Thr Leu  
20 25 30  
ttt acc tac tca agc ctc agc aat ggc gga cac cac gcc cat gga gcc 205  
Phe Thr Tyr Ser Ser Leu Ser Asn Gly Gly His His Ala His Gly Ala  
35 40 45  
ttg gtc act ggt agc a 221  
Leu Val Thr Gly Ser  
50

<210> 2493  
<211> 391  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 186..389

<400> 2493  
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atcagatacc ctacgctcat tggtagcatg ttctgcctag ctaaagagtt acttcttttg 120  
ctagggggga gccaaagaca tggtaggtg tgccatctca tgctgcagag caactggagg 180  
aggtg atg aga gag ctg gcc ccc gag tta ttt gaa tcc cag cct gat ctt 230  
Met Arg Glu Leu Ala Pro Glu Leu Phe Glu Ser Gln Pro Asp Leu  
1 5 10 15  
ctg cat cag tta gtt acb nnc atg aac ccc aac gwr cta atg gag cat 278  
Leu His Gln Leu Val Thr Xaa Met Asn Pro Asn Xaa Leu Met Glu His  
20 25 30  
ggt gtg cct gtg agt ctt ttg gtg tct tcc ttc agt tgt wtg ttt gtt 326  
Gly Val Pro Val Ser Leu Leu Val Ser Phe Ser Cys Xaa Phe Val  
35 40 45  
tgt ttg tww wtw tct ttt ttc wwk ttw ttt gaa aca ggg tct tgc tct 374  
Cys Leu Xaa Xaa Ser Phe Phe Xaa Xaa Phe Glu Thr Gly Ser Cys Ser  
50 55 60  
gtt gcc cag gct gga gt 391  
Val Ala Gln Ala Gly  
65

<210> 2494  
<211> 197  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS

<222> 36..197

<400> 2494

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cctacttcag cctcctgagt gctgggatta caggc atg agc cac tgt aaa gaa      53
                        Met Ser His Cys Lys Glu
                        1                    5
ttt ttt tta aca tct ttt tct ttt ttt ctt ttt gag agg gag tct tgc      101
Phe Phe Leu Thr Ser Phe Ser Phe Phe Leu Phe Glu Arg Glu Ser Cys
                        10                    15                    20
tct gtt gcc cag gat gga gtg cag tgg cgc gat ctc ggc tca ctg caa      149
Ser Val Ala Gln Asp Gly Val Gln Trp Arg Asp Leu Gly Ser Leu Gln
                        25                    30                    35
cct ctg cct ccc agg ttc aag aga ttc tcc tgc ctc agc ctc cca agc      197
Pro Leu Pro Pro Arg Phe Lys Arg Phe Ser Cys Leu Ser Leu Pro Ser
                        40                    45                    50
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<210> 2495

<211> 331

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 66..329

<400> 2495

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agaccggaag gtgaacatgc cctgcacggg tctggcagca agcgtctccc ccgtctcctc      60
acagg atg gac ctg aca gct tac gct gag ctg ctg aaa gaa tcc ggc aac      110
      Met Asp Leu Thr Ala Tyr Ala Glu Leu Leu Lys Glu Ser Gly Asn
      1                    5                    10                    15
cag gtt ctt aag aat ggg aac ttc tct ttg gcc atc aga aag tac gat      158
Gln Val Leu Lys Asn Gly Asn Phe Ser Leu Ala Ile Arg Lys Tyr Asp
                        20                    25                    30
gaa gcc atc cag att ctc ctg cag tta tac cag tgg ggg gtt ccc ccg      206
Glu Ala Ile Gln Ile Leu Leu Gln Leu Tyr Gln Trp Gly Val Pro Pro
                        35                    40                    45
agg gac ttg gct gtg ctg ctg tgc aac aaa tca aat gca ttt ttc agc      254
Arg Asp Leu Ala Val Leu Leu Cys Asn Lys Ser Asn Ala Phe Phe Ser
                        50                    55                    60
ctt ggg aag tgg aat gag gca ttt gtt gct gcc aag gaa tgt ctc caa      302
Leu Gly Lys Trp Asn Glu Ala Phe Val Ala Ala Lys Glu Cys Leu Gln
                        65                    70                    75
tgg gat cca acc tac gtg aag gga tgc ac
Trp Asp Pro Thr Tyr Val Lys Gly Cys      331
80                    85
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<210> 2496

<211> 181

<212> DNA

<213> Homo sapiens

<220>

<400> 2496

<210> 2497

<211> 293

<212> DNA

<213> Homo sapiens

$\langle 220 \rangle$

<221> CDS

<222> 130..291

<400> 2497

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gggtgactat	agtcaataat	aacttaattg	tgtattttta	aataacttag	aggccgggcg	120
gggtggctc	atg cct gta	atc cca gca	ttt tgg gag	gcc gag	gtg ggt gga	171
	Met	Pro Val	Ile	Pro Ala	Phe Trp Glu	Ala Glu Val Gly Gly
	1		5		10	
tca cct gag gtc	agg agt ttg	aga cca gcc	tgg cca	aca tgg	cgg aac	219
Ser Pro Glu Val	Arg Ser Leu	Arg Pro Ala	Trp Pro	Thr Trp	Arg Asn	
15		20		25		30
cct gtc ttt act	agg aat gcg	aag gtt ggc	tgg gcg	ttg tgg	cgc atg	267
Pro Val Phe Thr	Arg Asn Ala	Lys Val Gly	Trp Ala	Leu Trp	Arg Met	
	35		40		45	
cct gta atc cca	gct gct	cgg gag	gt			293
Pro Val Ile	Pro Ala	Ala Arg	Glu			
	50					

<210> 2498

<211> 161

<212> DNA

<213> Homo sapiens

**<220>**

<221> CDS

<222> 4..159

<400> 2498

aat atg att gag gac gtt ttc tca cta gca tta aca tct gtt gat aat	48
Met Ile Glu Asp Val Phe Ser Leu Ala Leu Thr Ser Val Asp Asn	
1 5 10 15	
tct tgc cag aat tat tat aag gtt tgc caa atg atg att ttt ctg	96
Ser Cys Gln Asn Tyr Tyr Tyr Lys Val Cys Gln Met Met Ile Phe Leu	
20 25 30	
att cca tca tcc ttt ctg cat cta tta act gtc tct tac tgt aag gaa	144
Ile Pro Ser Ser Phe Leu His Leu Leu Thr Val Ser Tyr Cys Lys Glu	
35 40 45	
gag ctt gga aga gct ag	161
Glu Leu Gly Arg Ala	
50	

<210> 2499

<211> 199

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 22..198

<400> 2499

acacgaatag aatggaatgg a atg gaa ttg aat gga aca gaa agg aat gga	51
Met Glu Leu Asn Gly Thr Glu Arg Asn Gly	
1 5 10	
atg gaa tgg aat gga atc aac cca agt gaa gtg gaa tgg aat gga atg	99
Met Glu Trp Asn Gly Ile Asn Pro Ser Glu Val Glu Trp Asn Gly Met	
15 20 25	
gaa ttc aat gga atg gaa tca tcc gga atg gaa tgg aat gga atg aaa	147
Glu Phe Asn Gly Met Glu Ser Ser Gly Met Glu Trp Asn Gly Met Lys	
30 35 40	
tgg aat gga atg gaa tgg aat caa ccc gag tgc aat gga atg gag agg	195
Trp Asn Gly Met Glu Trp Asn Gln Pro Glu Cys Asn Gly Met Glu Arg	
45 50 55	
aat c	199
Asn	

<210> 2500

<211> 217

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 57..215

<400> 2500

aacttccagc cmstgtgtat ggmaataacc tgaattgtat taatagcagt tcttca atg	59
Met	
1	

tgg gcc tgc tgg ggg atg ctt ggt tgt ttt ccg ttg ttt gtt ccc tgg	107
Trp Ala Cys Trp Gly Met Leu Gly Cys Phe Pro Leu Phe Val Pro Trp	
5 10 15	
gtg ccc gtc ttg ggc aag cat ttc tct gat gtc tct att tat gtg gca	155
Val Pro Val Leu Gly Lys His Phe Ser Asp Val Ser Ile Tyr Val Ala	
20 25 30	
ggt cac cct gct gat tgc ctt cat ctg tgt gcg gas tcc ctg tgg acc	203
Gly His Pro Ala Asp Cys Leu His Leu Cys Ala Xaa Ser Leu Trp Thr	
35 40 45	
aac tac agc gcc tg	217
Asn Tyr Ser Ala	
50	

<210> 2501  
 <211> 263  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 27..263

<400> 2501	
agccatgtac tccattgaca tcaacg atg tgc agg acc agt gct cct gct gct	53
Met Cys Arg Thr Ser Ala Pro Ala Ala	
1 5	
ctc cga cac gga cgg agc cca tgc agg tgg ccc tgc act gca cca atg	101
Leu Arg His Gly Arg Ser Pro Cys Arg Trp Pro Cys Thr Ala Pro Met	
10 15 20 25	
gct ctg ttg tgt acc atg agg ttc tca atg cca tgg agt gca aat gct	149
Ala Leu Leu Cys Thr Met Arg Phe Ser Met Pro Trp Ser Ala Asn Ala	
30 35 40	
ccc cca gga agt gca gca agt gag gct gct gca gct gca tgg gtg cct	197
Pro Pro Gly Ser Ala Ala Ser Glu Ala Ala Ala Ala Trp Val Pro	
45 50 55	
gct gct gcc tgc ctt ggc ctg atg gcc agg cca gag tgc tgc cag tcc	245
Ala Ala Ala Cys Leu Gly Leu Met Ala Arg Pro Glu Cys Cys Gln Ser	
60 65 70	
tct gca tgt tct gct ctt	263
Ser Ala Cys Ser Ala Leu	
75	

<210> 2502  
 <211> 215  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 10..213

<400> 2502



trtatatat	atg	aga	tct	cat	atr	tat	acc	atc	tca	tat	ata	tac	tac	awt	51	
	Met	Arg	Ser	His	Xaa	Tyr	Thr	Ile	Ser	Tyr	Ile	Tyr	Tyr	Xaa		
1					5					10						
tct	tkt	tkt	att	tca	ttk	tat	tat	tat	act	tta	agt	ttt	agg	gta	cat	99
Ser	Xaa	Xaa	Ile	Ser	Xaa	Tyr	Tyr	Tyr	Thr	Leu	Ser	Phe	Arg	Val	His	
15				20					25				30			
gtg	cac	aat	gtg	cag	gtt	tgt	tac	ata	tgt	ata	cat	gtg	cna	tgt	tgc	147
Val	His	Asn	Val	Gln	Val	Cys	Tyr	Ile	Cys	Ile	His	Val	Xaa	Cys	Cys	
			35					40				45				
tgt	gtt	gca	ccc	att	aac	tcg	cat	tta	gca	tta	ggg	ata	tct	cct	aat	195
Cys	Val	Ala	Pro	Ile	Asn	Ser	His	Leu	Ala	Leu	Gly	Ile	Ser	Pro	Asn	
		50						55				60				
gct	atc	cct	ccc	ccc	tcc	ct										215
Ala	Ile	Pro	Pro	Pro	Ser											
		65														

<210> 2503  
 <211> 202  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 30..200

<400> 2503																
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			Met	Glu	Ser	Ser	Asn	Gly	Met	Glu						
			1				5									
tgg	aat	aat	cca	tgg	act	cga	atg	caa	tca	tca	tcg	aat	gga	atc	gaa	101
Trp	Asn	Asn	Pro	Trp	Thr	Arg	Met	Gln	Ser	Ser	Ser	Asn	Gly	Ile	Glu	
10					15						20					
tgg	aat	cat	cga	atg	gac	tcg	aat	gga	ata	atc	att	gaa	cag	aat	cga	149
Trp	Asn	His	Arg	Met	Asp	Ser	Asn	Gly	Ile	Ile	Ile	Glu	Gln	Asn	Arg	
25			30					35				40				
atg	gaa	tca	tca	tcg	gat	gga	aat	gaa	agg	agt	cat	cat	cta	atg	gaa	197
Met	Glu	Ser	Ser	Ser	Asp	Gly	Asn	Glu	Arg	Ser	His	His	Leu	Met	Glu	
			45					50					55			
ttg	ca															202
Leu																

<210> 2504  
 <211> 190  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 30..188

<400> 2504																
cactgggtatt	ttctacaagg	agcctggta	atg	aaa	cta	agg	aaa	ata	cag	ttt						53

	Met	Lys	Leu	Arg	Lys	Ile	Gln	Phe	
	1				5				
gag gtt ctc ttg aag atg aag aga aaa ctt gga agg tgg ttg aga gtc									101
Glu Val Leu Leu Lys Met Lys Arg Lys Leu Gly Arg Trp Leu Arg Val									
10 15 20									
tca cgc ctc gtc tgc tat tgg gtg gga gct gct gct cca gcc gcc tct									149
Ser Arg Leu Val Cys Tyr Trp Val Gly Ala Ala Pro Ala Ala Ser									
25 30 35 40									
ggc ctc acg tct ggc cct ccg ctg tgc tcc cgt gcc ccc ct									190
Gly Leu Thr Ser Gly Pro Pro Leu Cys Ser Arg Ala Pro									
45 50									

<210> 2505  
 <211> 311  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 87..311

<400> 2505	
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cataaagagc tgtctcattt gttgta atg aat gcg aag tat ata ttt tat ata	113
Met Asn Ala Lys Tyr Ile Phe Tyr Ile	
1 5	
caa agg tgt gcc tcc aag tta tat gta ttt ttt ttt att ttt tat twt	161
Gln Arg Cys Ala Ser Lys Leu Tyr Val Phe Phe Phe Ile Phe Tyr Xaa	
10 15 20 25	
ttt ttg aga tgg agc ctc act cta tcg ccc arg ctg gag tac agt ggc	209
Phe Leu Arg Trp Ser Leu Thr Leu Ser Pro Xaa Leu Glu Tyr Ser Gly	
30 35 40	
gcc atc tcg gcc cac tgc aaa ctc cgc ctc ccg ggt tca ctt cat tct	257
Ala Ile Ser Ala His Cys Lys Leu Arg Leu Pro Gly Ser Leu His Ser	
45 50 55	
cct gcc tca gmc tcc cga gta gct ggg act aca ggc atg cgc cac mam	305
Pro Ala Ser Xaa Ser Arg Val Ala Gly Thr Thr Gly Met Arg His Xaa	
60 65 70	
gca cgt	
Ala Arg	311
75	

<210> 2506  
 <211> 268  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 85..267

<400> 2506



<222> 19..201

<400> 2508

cnactcgatt gthatgga atg caa tgg naa tgg aat gga atg gaa tgg aat	51
Met Gln Trp Xaa Trp Asn Gly Met Glu Trp Asn	
1 5 10	
gga atg gaa tta acc cga ata aaa tgg aat gga atg gaa tgg aac gga	99
Gly Met Glu Leu Thr Arg Ile Lys Trp Asn Gly Met Glu Trp Asn Gly	
15 20 25	
atg gag tgg aat gga atg gaa tca acc cga gtg cag ggg aat gga atg	147
Met Glu Trp Asn Gly Met Glu Ser Thr Arg Val Gln Gly Asn Gly Met	
30 35 40	
gaa tgg aat gca atg gna atg gaa tca tcc gga atg gaa tgg aat gga	195
Glu Trp Asn Ala Met Xaa Met Glu Ser Ser Gly Met Glu Trp Asn Gly	
45 50 55	
atg gaa	
Met Glu	201
60	

<210> 2509

<211> 161

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 4..159

<400> 2509

gga atg gaa tgg aat gga atg gaa tgc aat gga atg gaa tca acc cga	48
Met Glu Trp Asn Gly Met Glu Cys Asn Gly Met Glu Ser Thr Arg	
1 5 10 15	
gtg caa tcg aat gga atc gaa tgg aat gga atg caa tgg aat gga ttc	96
Val Gln Ser Asn Gly Ile Glu Trp Asn Gly Met Gln Trp Asn Gly Phe	
20 25 30	
aac ttg aat gga atg gaa aga atg gaa tca aca cga gtg gaa tgg cat	144
Asn Leu Asn Gly Met Glu Arg Met Glu Ser Thr Arg Val Glu Trp His	
35 40 45	
gga ttg gaa tgg aat gc	
Gly Leu Glu Trp Asn	161
50	

<210> 2510

<211> 234

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 52..234

<400> 2510  
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 Met Ile  
 1  
 tca ggg gga gag gtg gag ggc aga tgt cct ggg caa acc ggg ccc ctc 105  
 Ser Gly Gly Glu Val Glu Gly Arg Cys Pro Gly Gln Thr Gly Pro Leu  
 5 10 15  
 tgc cca cac acc tca ctt gaw cct ttt gcc aaa ctt gtc aaa ctc agg 153  
 Cys Pro His Thr Ser Leu Xaa Pro Phe Ala Lys Leu Val Lys Leu Arg  
 20 25 30  
 gga act ggc ttc cca gtt gcc cct ttg cca tat tcc aag tcc ccc tca 201  
 Gly Thr Gly Phe Pro Val Ala Pro Leu Pro Tyr Ser Lys Ser Pro Ser  
 35 40 45 50  
 gac ttc atg tct ctg ctc atc agc act gtc cat 234  
 Asp Phe Met Ser Leu Leu Ile Ser Thr Val His  
 55 60

<210> 2511  
 <211> 234  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 21..233

<400> 2511  
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 Met Phe Ile Phe Thr Ile Ser Ile Ser Phe Phe  
 1 5 10  
 tct tta cta ttt att tat tta ttt att tat ttt ttg agt cag att ctc 101  
 Ser Leu Leu Phe Ile Tyr Leu Phe Ile Tyr Phe Leu Ser Gln Ile Leu  
 15 20 25  
 cct ctg tct ccc agg ctg gag tgc agt gtt gtg atc tca gct cac tgc 149  
 Pro Leu Ser Pro Arg Leu Glu Cys Ser Val Val Ile Ser Ala His Cys  
 30 35 40  
 aac ctc cac ctc ctg ggt tca agc gat tct tat gcc tta gcc tcc caa 197  
 Asn Leu His Leu Leu Gly Ser Ser Asp Ser Tyr Ala Leu Ala Ser Gln  
 45 50 55  
 gca gct ggg acc aca ggc aca tgc cac cat gcc caa c 234  
 Ala Ala Gly Thr Thr Gly Thr Cys His His Ala Gln  
 60 65 70

<210> 2512  
 <211> 219  
 <212> DNA  
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<220>  
 <221> CDS  
 <222> 21..218

<400> 2512  
aaagaaaaag attctcaacc atg cca gaa aca gaa aca cat gag aga gag act 53  
Met Pro Glu Thr Glu Thr His Glu Arg Glu Thr  
1 5 10  
gaa ttg ttt tca cca cct tct gat gtc cga ggc atg aca aaa ctt gat 101  
Glu Leu Phe Ser Pro Pro Ser Asp Val Arg Gly Met Thr Lys Leu Asp  
15 20 25  
aga aca gct ttt aaa aag aca gtc aac att cca gtg ctt aaa gtg agg 149  
Arg Thr Ala Phe Lys Lys Thr Val Asn Ile Pro Val Leu Lys Val Arg  
30 35 40  
aaa gaa ata gtc agt aaa ttg atg cga tcc cta aaa agg gca gca ttg 197  
Lys Glu Ile Val Ser Lys Leu Met Arg Ser Leu Lys Arg Ala Ala Leu  
45 50 55  
cag cgc cca ggc ata aga ccc t 219  
Gln Arg Pro Gly Ile Arg Pro  
60 65

<210> 2513  
<211> 212  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 2..211

<400> 2513  
t atg gat tat caa cct gtt cag ttg act ctt agt ttt aat tct ctc tca 49  
Met Asp Tyr Gln Pro Val Gln Leu Thr Leu Ser Phe Asn Ser Leu Ser  
1 5 10 15  
ttt caa tcc ttt ctc cat att ggt tgt aat gct cct aat tca ggc tcc 97  
Phe Gln Ser Phe Leu His Ile Gly Cys Asn Ala Pro Asn Ser Gly Ser  
20 25 30  
ttt tgt ctc caw ctg gat gat tgt ngv wmt cct ttw gtc tcc atc tgg 145  
Phe Cys Leu Xaa Leu Asp Asp Cys Xaa Xaa Pro Xaa Val Ser Ile Trp  
35 40 45  
atg att gtt gta acc tcc tta atg gac att gaa tgt cca ttc ttt ctt 193  
Met Ile Val Val Thr Ser Leu Met Asp Ile Glu Cys Pro Phe Phe Leu  
50 55 60  
ctt tta tcc cct cca cag c 212  
Leu Leu Ser Pro Pro Gln  
65 70

<210> 2514  
<211> 337  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 171..335

&lt;400&gt; 2514

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ctacaaatgg ggagaaagtt tgggggaggc atatatctcc tagggggttg ttataaaaga      60
tatgcaatgc gttaacagcg ctaagcagca ataaccacaa taagataaca ccaaattggg      120
cagggaccct gaatagacat ttctgcacag gggacgtaac actgagcaga atg gag      176
                                   Met Glu
                                   1
aga acc agg tcc tca gca tcg ccg tca tca ggg gtg ggt ccc cgt cag      224
Arg Thr Arg Ser Ser Ala Ser Pro Ser Ser Gly Val Gly Pro Arg Gln
      5                               10                               15
gct cgc act agg gtg tcc ctc ccc cct ggt cag gtg gtc gtg acc aga      272
Ala Arg Thr Arg Val Ser Leu Pro Pro Gly Gln Val Val Val Thr Arg
      20                               25                               30
ggg aca gaa ggg gac ata ggc ttc cct ggg ggc ggg ggn tgg agg ggg      320
Gly Thr Glu Gly Asp Ile Gly Phe Pro Gly Gly Gly Gly Trp Arg Gly
      35                               40                               45                               50
gtg aaa gag tcc cga tt
Val Lys Glu Ser Arg
                                   55

```

&lt;210&gt; 2515

&lt;211&gt; 276

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 82..276

&lt;400&gt; 2515

```

ccctttagat ttctcagttc ttgcttatat tttgaatcta tattatcaga tttcacacat      60
ttttattggt atgtattcct a atg aat caa cct ttt tat tat aac atg act      111
                                   Met Asn Gln Pro Phe Tyr Tyr Asn Met Thr
                                   1                               5                               10
cta ttt ctt gwc ytt gga arc twa ctt tgt ctt aca ttg ata tat tac      159
Leu Phe Leu Xaa Xaa Gly Xaa Xaa Leu Cys Leu Thr Leu Ile Tyr Tyr
      15                               20                               25
tac ctt tct tat att tac gtt tta cat ggt aaa tca ctt tcc ctc ttt      207
Tyr Leu Ser Tyr Ile Tyr Val Leu His Gly Lys Ser Leu Ser Leu Phe
      30                               35                               40
tta atc cat ctg cga ctt ata ctt att aaa ttt tgt ctc tca tat aag      255
Leu Ile His Leu Arg Leu Ile Leu Ile Lys Phe Cys Leu Ser Tyr Lys
      45                               50                               55
cta aca tat agt tgg gcc ctt
Leu Thr Tyr Ser Trp Ala Leu
      60                               65

```

&lt;210&gt; 2516

&lt;211&gt; 252

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

<222> 92..250

<400> 2516

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tcctgaagac agattctcta gagaaaatca ttacaatgaa gaaaatgaat attttttaga      60
ttattgtcat gtttttaaata tactttttaaa a atg gct tac aag ttt act ctc      112
                               1      5
Met Ala Tyr Lys Phe Thr Leu
cca cca gag cag tat gtt tca ctg cat ttt ttc caa att atc tcc ctt      160
Pro Pro Glu Gln Tyr Val Ser Leu His Phe Phe Gln Ile Ile Ser Leu
      10      15      20
tcg att tgc tat ttc tat aat ttc cta att ttt ttt tkg ttt ttt ttt      208
Ser Ile Cys Tyr Phe Tyr Asn Phe Leu Ile Phe Phe Xaa Phe Phe Phe
      25      30      35
aac act gca tac aaa tac aag tat ttc ttt ctt ttt twa aaa aa      252
Asn Thr Ala Tyr Lys Tyr Lys Tyr Phe Phe Leu Phe Xaa Lys
40      45      50
```

<210> 2517

<211> 322

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 81..320

<400> 2517

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tggaaaagcc aaatctcatt tacatcatct aaacacatag cacctcttct aaaagaggaa      60
cttgaaataa atgtaattgc atg tgt ttg tta ctc aac ttt tta aaa att tgc      113
                               1      5      10
Met Cys Leu Leu Leu Asn Phe Leu Lys Ile Cys
ccc ttk gaa aty cct tta atg ttt aat ctt ttc tat ctt tta tca tac      161
Pro Xaa Glu Ile Pro Leu Met Phe Asn Leu Phe Tyr Leu Leu Ser Tyr
      15      20      25
aga aat ggt gat tat gca cac tgt aca atg gca cag gcc aat gta ggc      209
Arg Asn Gly Asp Tyr Ala His Cys Thr Met Ala Gln Ala Asn Val Gly
      30      35      40
tgg ggc tta gag aac tgg aga aaa gcg tgt ttg tgt gta gta cct cag      257
Trp Gly Leu Glu Asn Trp Arg Lys Ala Cys Leu Cys Val Val Pro Gln
      45      50      55
gta ctc ctt gcc ttg cag tcc ana gca aat gta ccg ctt ctc ctg gtt      305
Val Leu Leu Ala Leu Gln Ser Xaa Ala Asn Val Pro Leu Leu Leu Val
60      65      70      75
ttc ttt cta gaa act ac
Phe Phe Leu Glu Thr      80
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<210> 2518

<211> 215

<212> DNA

<213> Homo sapiens



**EXHIBIT A**

[illegible]

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<220>  
<221> CDS  
<222> 125..292
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<400>	2519	
ttttctttct	agttcaatcc	ttgttgctct
atgtttttatt	gtggtaaaat	atatgtaaca
ccag	atg	gag
	tct	cgc
	tct	gtc
	acc	cag
	gct	gga
	gtg	caa
	tgg	cgc
	gca	
Met	Glu	Ser
	Arg	Ser
	Val	Thr
	Gln	Ala
	Gly	Val
	Gln	Trp
	Arg	Ala
1		5
		10
		15
atc	tct	gct
	cac	tgc
	aac	ctc
	tgc	ctt
	ccg	ggg
	tca	ggc
	gat	tct
	cct	
Ile	Ser	Ala
	His	Cys
	Asn	Leu
	Cys	Leu
	Pro	Gly
	Ser	Gly
	Asp	Ser
	Pro	
	20	25
		30
gct	tca	gcc
	tcc	cga
	gta	gct
	ggg	att
	acg	ggc
	gtg	tgc
	cac	cgt
	gcc	
Ala	Ser	Ala
	Ser	Arg
	Val	Ala
	Gly	Ile
	Thr	Gly
	Val	Cys
	His	Arg
	Ala	
	35	40
		45
cag	cta	awn
	ntt	gta
	ttt	tta
	gta	gag
	at	
Gln	Leu	Xaa
	Xaa	Val
	Phe	Leu
	Val	Glu
	50	55

**<220>**

<221> CDS  
<222> 132..290

<400> 2520  
cactagcaag acagtawaac acccctggca cactaggggt gccacaggtg ctgcctgtag 60  
ccttgccagc taagcacatg acctctctta gagaagggct ttctcaatgc cttggctcct 120  
aaagtgaagt c atg kga aaa gta agg rag aaa cgg gtg ctt gaa aaa gca 170  
Met Xaa Lys Val Arg Xaa Lys Arg Val Leu Glu Lys Ala  
1 5 10  
gnc tca gtc btt ctg gat ggc ccc cag gca gac agg agc cva ggc ctc 218  
Xaa Ser Val Xaa Leu Asp Gly Pro Gln Ala Asp Arg Ser Xaa Gly Leu  
15 20 25  
tgg ctc cag ctt gcc agg gtc aca gag atg ttc ttc bna act ggc act 266  
Trp Leu Gln Leu Ala Arg Val Thr Glu Met Phe Phe Xaa Thr Gly Thr  
30 35 40 45  
tgg sct cac cag ctt ctc ccc cca c 291  
Trp Xaa His Gln Leu Leu Pro Pro  
50

<210> 2521  
<211> 223  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 54..221

<400> 2521  
tgagttcctc tccataacag agcgtcttac tgtagggctc agcatacttt tac atg 56  
Met  
1  
tat agt att tta agt ttt tta aac tat atg cat att ata tat agg tct 104  
Tyr Ser Ile Leu Ser Phe Leu Asn Tyr Met His Ile Ile Tyr Arg Ser  
5 10 15  
tgc ata tac att gat aaa tgt atc ctt aca tat ttc ctg ttt ttt aat 152  
Cys Ile Tyr Ile Asp Lys Cys Ile Leu Thr Tyr Phe Leu Phe Phe Asn  
20 25 30  
gct gtt gta aag gta ttg gtt tta aaa ttc aat ttt cac ttg ttc gtt 200  
Ala Val Val Lys Val Leu Val Leu Lys Phe Asn Phe His Leu Phe Val  
35 40 45  
gtg agt ata gaa atc cag ttt tt 223  
Val Ser Ile Glu Ile Gln Phe  
50 55

<210> 2522  
<211> 240  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS

<222> 86..238

<400> 2522

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ctgtatttgt tgttgtcctt tatccctcgc cccccctcc actcttcccc caagttccca    60
aagtcactg tatcattttt tttca atg cta ctt aat gct ttt tat tta gas    112
                               Met Leu Leu Asn Ala Phe Tyr Leu Xaa
                               1                               5
awg ams gtg twg gct ttc ttt ttt ttt tat tat haw act tta agt tct    160
Xaa Xaa Val Xaa Ala Phe Phe Phe Phe Tyr Tyr Xaa Thr Leu Ser Ser
10                               15                               20                               25
ggg ata cac gtg aag aac atg cag gtt tat tac ata ggt ata cac tgc    208
Gly Ile His Val Lys Asn Met Gln Val Tyr Tyr Ile Gly Ile His Cys
                               30                               35                               40
cat ggt ggt ttg ctg cac cca tca acc tgt ca    240
His Gly Gly Leu Leu His Pro Ser Thr Cys
                               45                               50
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<210> 2523

<211> 276

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 5..274

<400> 2523

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ctga atg gag aag agc agc aaa tgt gag tgc aat aaa cgt ttt caa atg    49
      Met Glu Lys Ser Ser Lys Cys Glu Cys Asn Lys Arg Phe Gln Met
      1                               5                               10                               15
atc ttt ttc tgc ttg aat tat gtt tca cta aaa tat atg agt ctc aat    97
Ile Phe Phe Cys Leu Asn Tyr Val Ser Leu Lys Tyr Met Ser Leu Asn
      20                               25                               30
tcc ttg agt ctg tca aaa aac atc tgc agc tta gag aaa agt tat gga    145
Ser Leu Ser Leu Ser Lys Asn Ile Cys Ser Leu Glu Lys Ser Tyr Gly
      35                               40                               45
ata atg ttg ttt tcc act cag ccc att tac ttt gaa gcc tta tca gag    193
Ile Met Leu Phe Ser Thr Gln Pro Ile Tyr Phe Glu Ala Leu Ser Glu
      50                               55                               60
gag gga tca aat gaa act gat cat ccc cag gtt tcc cca ggt tat tac    241
Glu Gly Ser Asn Glu Thr Asp His Pro Gln Val Ser Pro Gly Tyr Tyr
      65                               70                               75
cat gtg gac atg gaa tta acc tcc ttc cag cac ct    276
His Val Asp Met Glu Leu Thr Ser Phe Gln His
      80                               85                               90
```

<210> 2524

<211> 410

<212> DNA

<213> Homo sapiens

<220>

<221> CDS  
<222> 79..408

<400> 2524

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ctcttgagc tgagctataa gacaacagga ctgaacaggg agccaactgt ttctttgaac      60
agtaaatacag gaacacca atg gac caa aat gaa cac agt cac tgg gga cca      111
                Met Asp Gln Asn Glu His Ser His Trp Gly Pro
                1                    5                    10
cat gca aag ggc caa tgt gcb agc aga tct gag ctg aga atc atc ctg      159
His Ala Lys Gly Gln Cys Ala Ser Arg Ser Glu Leu Arg Ile Ile Leu
                15                    20                    25
gtg ggc aaa aca gga act ggc aaa agt gct gca ggg aac agc atc ctc      207
Val Gly Lys Thr Gly Thr Gly Lys Ser Ala Ala Gly Asn Ser Ile Leu
                30                    35                    40
agg aag caa gca ttt gaa tcg aag ctg ggt tcc cag acc ttg act aag      255
Arg Lys Gln Ala Phe Glu Ser Lys Leu Gly Ser Gln Thr Leu Thr Lys
                45                    50                    55
att tgc agc aaa agt cag gga agc tgg gga aat aga gag att gtc att      303
Ile Cys Ser Lys Ser Gln Gly Ser Trp Gly Asn Arg Glu Ile Val Ile
                60                    65                    70                    75
att gac aca cca gat atg ttt tct tgg aag gac cac tgt gaa gct ctg      351
Ile Asp Thr Pro Asp Met Phe Ser Trp Lys Asp His Cys Glu Ala Leu
                80                    85                    90
tac aaa gag gtg cag agg tgc tnc ttg ctg tct gca cca gga ccc cat      399
Tyr Lys Glu Val Gln Arg Cys Xaa Leu Leu Ser Ala Pro Gly Pro His
                95                    100                    105
gtg ctg ctc ct
Val Leu Leu
                110

```

<210> 2525  
<211> 222  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 13..222

<400> 2525

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caatggaatg ga atg gaa tgg aat gga atg gaa tgg aat gga atg gaa tgg      51
                Met Glu Trp Asn Gly Met Glu Trp Asn Gly Met Glu Trp
                1                    5                    10
aat gca atg gaa tgg aat ctt ccg gaa tgg aat gga atg gaa tgg aat      99
Asn Ala Met Glu Trp Asn Leu Pro Glu Trp Asn Gly Met Glu Trp Asn
                15                    20                    25
gga atg gaa tgc aat gga ttc aac tcg att gca atg gaa tgg mat aga      147
Gly Met Glu Cys Asn Gly Phe Asn Ser Ile Ala Met Glu Trp Xaa Arg
                30                    35                    40                    45
atg gam atg gaa tgg mat gga mat gga gtg gag tta aac cgm ata gaa      195
Met Xaa Met Glu Trp Xaa Gly Xaa Gly Val Glu Leu Asn Arg Ile Glu
                50                    55                    60

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004220" 55555555

222

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<220>  
<221> CDS  
<222> 53..349
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58

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<220>  
<221> CDS  
<222> 155..325
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60

120

175

1629

004220" 666E7550

cca gtt tca ata att aag aac aca ttg tca agt ctg cat tat ctc tta	1	5	
Pro Val Ser Ile Ile Lys Asn Thr Leu Ser Ser Leu His Tyr Leu Leu			223
10	15	20	
cac tcc tac ttt cct cct ccc ctg gat tat ttt aag gca aat caa aga			
His Ser Tyr Phe Pro Pro Pro Leu Asp Tyr Phe Lys Ala Asn Gln Arg			271
25	30	35	
cca cat ctc tct tct gaa aac cct ttc agt act tcc cam ttc ctc tgc			
Pro His Leu Ser Ser Glu Asn Pro Phe Ser Thr Ser Xaa Phe Leu Cys			319
40	45	50	55
ccc acc c			
Pro Thr			326

<210> 2528  
 <211> 202  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 30..200

<400> 2528	
aatcgaagag aatcatcgaa tggaccgga atg gaa tca tct aat gga atg gaa	53
Met Glu Ser Ser Asn Gly Met Glu	
1	5
tgg aat aat cca tgg act cga atg caa tca tca tcg aat gga atc gaa	
Trp Asn Asn Pro Trp Thr Arg Met Gln Ser Ser Ser Asn Gly Ile Glu	101
10	15
tgg aat cat cga atg gam tcg aat gga ata atc att gra mca gaa tcc	
Trp Asn His Arg Met Xaa Ser Asn Gly Ile Ile Ile Xaa Xaa Glu Ser	149
25	30
raa tgg aat cat cat cgg atg gaa aat gaa agg agt cat cat cta atg	
Xaa Trp Asn His His Arg Met Glu Asn Glu Arg Ser His His Leu Met	197
45	50
gaa tt	55
Glu	202

<210> 2529  
 <211> 291  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 97..291

<400> 2529	
aagttttgta ttaggttggt ttcacactgc tataaagaaa tgcctgagac tgggtaatat	60
ataaaagaaa gaggtttaat ttactcacag ttctgc atg gct gag gag gcc tct	114
Met Ala Glu Glu Ala Ser	
1	5

gga aac ttg caa tca tgg cgg aaa gtg rag ggg aar gca gac acc ttc 162  
 Gly Asn Leu Gln Ser Trp Arg Lys Val Xaa Gly Lys Ala Asp Thr Phe  
                   10                  15                  20  
 ttt aca agg cac cag gag aga gag aaa gac cag gag aaa ctg cca ttt 210  
 Phe Thr Arg His Gln Glu Arg Glu Lys Asp Gln Glu Lys Leu Pro Phe  
                   25                  30                  35  
 ata aaa cta tca gat ctc atg aga att tac tca cta tca caa gaa cag 258  
 Ile Lys Leu Ser Asp Leu Met Arg Ile Tyr Ser Leu Ser Gln Glu Gln  
                   40                  45                  50  
 cat agg gga aac cgc tcc cat gat cca gcc aca 291  
 His Arg Gly Asn Arg Ser His Asp Pro Ala Thr  
                   55                  60                  65

<210> 2530  
 <211> 249  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 81..248

<400> 2530  
 tggaccgacg ggcgcaccca ggtagggggg cggctgagcs sgcagtgcgg accctcgcgg 60  
 ggaactgcgc cgccgccacc atg tct cag gaa ggt gtg gag ctg gag aag agc 113  
                                   1                                  5                                  10  
                                   Met Ser Gln Glu Gly Val Glu Leu Glu Lys Ser  
 gtc cgg cgc ctc cgg gag aag ttt cat ggg aag gta tcv tcc aag aag 161  
 Val Arg Arg Leu Arg Glu Lys Phe His Gly Lys Val Ser Ser Lys Lys  
                   15                  20                  25  
 gcg ggg gct ctg atg agg aaa ttc ggc agc gac cac acc gga gtg ggg 209  
 Ala Gly Ala Leu Met Arg Lys Phe Gly Ser Asp His Thr Gly Val Gly  
                   30                  35                  40  
 cgc tcc atc gtg tac ggg gta aag caa aaa gat ggc cac c 249  
 Arg Ser Ile Val Tyr Gly Val Lys Gln Lys Asp Gly His  
                   45                  50                  55

<210> 2531  
 <211> 238  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 62..238

<400> 2531  
 atcagatttg gatttgaat ggagtaacca aggacagcct tgtctctttg gatggctgag 60  
 g atg ggc atg agg aaa gta cag tcc cgt ggt tat cca gaa tac acc ccd 109  
                   Met Gly Met Arg Lys Val Gln Ser Arg Gly Tyr Pro Glu Tyr Thr Pro  
                   1                  5                  10                  15  
 gtt gat gtc gcc agg gtc agt gag ccc cat aca ggt caa aga gga gca 157

Val Asp Val Ala Arg Val Ser Glu Pro His Thr Gly Gln Arg Gly Ala  
 20 25 30  
 gac atg ggg gcc agt agc acc cct cag trg ccc agc ccc gct cct cgc 205  
 Asp Met Gly Ala Ser Ser Thr Pro Gln Xaa Pro Ser Pro Ala Pro Arg  
 35 40 45  
 ctt gga tgg aca cat aca aac ccg ctc ccc act 238  
 Leu Gly Trp Thr His Thr Asn Pro Leu Pro Thr  
 50 55

<210> 2532  
 <211> 197  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 16..195

<400> 2532  
 aaaacatggg ccacc atg ttc agc tat tta ttt att tgt ttg ttt att tat 51  
 Met Phe Ser Tyr Leu Phe Ile Cys Leu Phe Ile Tyr  
 1 5 10  
 ttt gag atg gaa gca cgc tct att gcc agg ctg gag tgc agc ggc gct 99  
 Phe Glu Met Glu Ala Arg Ser Ile Ala Arg Leu Glu Cys Ser Gly Ala  
 15 20 25  
 ctt ggc tca ctg caa ccc tcc cgc ctt cca ggt tba aac gat tct tca 147  
 Leu Gly Ser Leu Gln Pro Ser Arg Leu Pro Gly Xaa Asn Asp Ser Ser  
 30 35 40  
 gcc tcg gcc tcc aga gta gct gga aat ata ggt gcc cac cac cac gcc 195  
 Ala Ser Ala Ser Arg Val Ala Gly Asn Ile Gly Ala His His His Ala  
 45 50 55 60  
 ca 197

<210> 2533  
 <211> 267  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 18..266

<400> 2533  
 agccacacca gcagagg atg acg agg atg atg aca ttg acc tcc ttg gct 50  
 Met Thr Arg Met Met Thr Leu Thr Ser Leu Ala  
 1 5 10  
 tgc ctg gtg ggg gaa ggg gag gag ggg aag aag gaa agg gaa gag tct 98  
 Cys Leu Val Gly Glu Gly Glu Glu Gly Lys Lys Glu Arg Glu Glu Ser  
 15 20 25  
 tcc aag gcc aga agg aag ggg gga caa ccc ccc aar aaa cca tcc ctg 146  
 Ser Lys Ala Arg Arg Lys Gly Gln Pro Pro Lys Lys Pro Ser Leu  
 30 35 40



aag acg agc atc ccc ctc ctc tcc ctg tta gaa atg tta gtg ccc cgc 194  
 Lys Thr Ser Ile Pro Leu Leu Ser Leu Leu Glu Met Leu Val Pro Arg  
 45 50 55  
 act gtg ccc caa gtt cta ggc ccc cca gaa agc tgt cag agc cag gst 242  
 Thr Val Pro Gln Val Leu Gly Pro Pro Glu Ser Cys Gln Ser Gln Xaa  
 60 65 70 75  
 ctc cgg gcc ttt ctc tgg ctt cct t 267  
 Leu Arg Ala Phe Leu Trp Leu Pro  
 80

<210> 2534  
 <211> 265  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 73..264

<400> 2534  
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 ttcttttttg ag atg ggg tct cac tct gtc acc cag gct gac atg cag ttg 111  
 Met Gly Ser His Ser Val Thr Gln Ala Asp Met Gln Leu  
 1 5 10  
 cat gat ctc ggc tca ctg caa cct ctg ctt ccc agg ttc aag caa ttc 159  
 His Asp Leu Gly Ser Leu Gln Pro Leu Leu Pro Arg Phe Lys Gln Phe  
 15 20 25  
 tca cgc ctc agc ctc cca aga agc tgg gat ata ggc gtg cat cac cac 207  
 Ser Arg Leu Ser Leu Pro Arg Ser Trp Asp Ile Gly Val His His His  
 30 35 40 45  
 acc tgg cta att ttt gta ttt tta gta gaa atg ggg ttt cac cac att 255  
 Thr Trp Leu Ile Phe Val Phe Leu Val Glu Met Gly Phe His His Ile  
 50 55 60  
 gcc ccg gct a 265  
 Ala Pro Ala

<210> 2535  
 <211> 201  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 22..201

<400> 2535  
 attggaatca acgcgagtgg a atg gaa tgg aaa gga ctg gaa tgg agt gga 51  
 Met Glu Trp Lys Gly Leu Glu Trp Ser Gly  
 1 5 10  
 atg gaa tgg aat gga atg gaa tgg aat caa ctc gat tgg aat gga atg 99  
 Met Glu Trp Asn Gly Met Glu Trp Asn Gln Leu Asp Trp Asn Gly Met  
 15 20 25

gaa tgg aat gga atg gaa att aaa ccg aat ara atg gaa tgg aat gga 147  
 Glu Trp Asn Gly Met Glu Ile Lys Pro Asn Xaa Met Glu Trp Asn Gly  
 30 35 40  
 atg gaa cgg aac gga aat gga atg gaa tgg aat gga atg gaa tgg aat 195  
 Met Glu Arg Asn Gly Asn Gly Met Glu Trp Asn Gly Met Glu Trp Asn  
 45 50 55  
 gga aaa 201  
 Gly Lys  
 60  
  
 <210> 2536  
 <211> 305  
 <212> DNA  
 <213> Homo sapiens  
  
 <220>  
 <221> CDS  
 <222> 70..303  
  
 <400> 2536  
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 ttcaggcga atg cca cca tgc cca gct aag ctt ttt aat ttt aaa ata ctt 111  
 Met Pro Pro Cys Pro Ala Lys Leu Phe Asn Phe Lys Ile Leu  
 1 5 10  
 gat tct ttt gta ata acc ttt agt tta aaa cac aaa cag ggc cca tcg 159  
 Asp Ser Phe Val Ile Thr Phe Ser Leu Lys His Lys Gln Gly Pro Ser  
 15 20 25 30  
 tgg tgg ctc aca cct gta atc cca gca ctt tgg aag gct gag gcg ggt 207  
 Trp Trp Leu Thr Pro Val Ile Pro Ala Leu Trp Lys Ala Glu Ala Gly  
 35 40 45  
 gga tca cct gag gtc aag agt tcg aga cca gcc tgg cca aca tgg cga 255  
 Gly Ser Pro Glu Val Lys Ser Ser Arg Pro Ala Trp Pro Thr Trp Arg  
 50 55 60  
 aat ccc atc tct act aaa aat aca aaa att agg cat ggt ggc atg cgc 303  
 Asn Pro Ile Ser Thr Lys Asn Thr Lys Ile Arg His Gly Gly Met Arg  
 65 70 75  
 ct 305  
  
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 <222> 8..187  
  
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 caatgga atg gaa tgg aat gga aca gaa tgg agt gga atg gaa tgg aat 49  
 Met Glu Trp Asn Gly Thr Glu Trp Ser Gly Met Glu Trp Asn  
 1 5 10  
 caa ccc gag tgc agg gga atg gaa tgg aat gga atg caa tgt aat gga 97

Gln	Pro	Glu	Cys	Arg	Gly	Met	Glu	Trp	Asn	Gly	Met	Gln	Cys	Asn	Gly	
15					20					25					30	
atc	atc	cgg	aat	gga	atg	gga	tgg	aat	gga	awg	gaa	tgg	aat	gga	atg	145
Ile	Ile	Arg	Asn	Gly	Met	Gly	Trp	Asn	Gly	Xaa	Glu	Trp	Asn	Gly	Met	
			35						40					45		
gaa	tgg	aat	gga	atc	aac	gcg	agt	gca	ggg	gaa	tgg	aat	gga	aa		189
Glu	Trp	Asn	Gly	Ile	Asn	Ala	Ser	Ala	Gly	Glu	Trp	Asn	Gly			
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<220>  
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 <222> 119..301

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ttagg	c	ttt	tgt	at	ctata	ttc	ataa	aga	ttatt	gac	c	ct	gtg	gtt	t	ttt	gt	gtg	118
atg	ttt	ttg	tct	agt	ttt	ttt	ttt	att	att	tta	ttt	tat	tat	tat	tac				166
Met	Phe	Leu	Ser	Ser	Phe	Phe	Phe	Ile	Ile	Leu	Phe	Tyr	Tyr	Tyr	Tyr				
1			5					10				15							
act	tta	agt	ttt	agg	gta	cat	gtg	cac	aat	gtg	cag	gtt	agt	tac	ata				214
Thr	Leu	Ser	Phe	Arg	Val	His	Val	His	Asn	Val	Gln	Val	Ser	Tyr	Ile				
			20					25				30							
tgt	ata	cag	tgc	cat	gct	gg	gtg	ctg	cac	cca	tta	cct	cgt	cat	tta				262
Cys	Ile	Gln	Cys	His	Ala	Gly	Val	Leu	His	Pro	Leu	Pro	Arg	His	Leu				
		35				40				45									
gca	tta	gg	ata	tct	cct	aat	gct	atc	cct	ccc	ccc	aca	a						302
Ala	Leu	Gly	Ile	Ser	Pro	Asn	Ala	Ile	Pro	Pro	Pro	Thr							
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<210> 2539  
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 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 51..272

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aac	ctc	agt	ata	tcc	act	agt	gac	aac	ttc	ttt	ttt	tgc	tgt	gtc	gcc				
Asn	Leu	Ser	Ile	Ser	Thr	Ser	Asp	Asn	Phe	Phe	Phe	Cys	Cys	Val	Ala				104
		5				10					15								
cag	att	gga	gtg	cag	tgg	tgc	gat	ctc	agc	tca	ctg	cag	cct	cca	cct				152
Gln	Ile	Gly	Val	Gln	Trp	Cys	Asp	Leu	Ser	Ser	Leu	Gln	Pro	Pro	Pro				

20	25	30	
ctt ggg ttc aag cga ttg tct tgc ctc ggt ctc cta agt agc tgg gat			200
Leu Gly Phe Lys Arg Leu Ser Cys Leu Gly Leu Leu Ser Ser Trp Asp			
35	40	45	50
tgc agg tct gca cca cca cgc cca gct aat ttt tgt att ttt agt aga			248
Cys Arg Ser Ala Pro Pro Arg Pro Ala Asn Phe Cys Ile Phe Ser Arg			
55	60	65	
ctt act aaa aat gtc ttg ccc caa t			273
Leu Thr Lys Asn Val Leu Pro Gln			
70			

<210> 2540  
 <211> 441  
 <212> DNA  
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<220>  
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 <222> 277..441

<400> 2540

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catggggctg cctttgccaa gctcttcctt gtggtttgat aagaaaaact ctgggtgggta	120
atagcatctg tctcttgggg gtgaagttag aatgacagaa tctaatttct cccatctgtt	180
aaaggaggcc acaagacttc agtactccaa tgatctaagc agctgtccct gacctttttc	240
ttttttgagc ccagggttga gtacagtgc gcgatc atg gct ctc tgc agc ctc	294
Met Ala Leu Cys Ser Leu	
1	5
gac ctn hsa ggc tca ggt gat gct ctc acc tta gcc tcc caa agt act	342
Asp Leu Xaa Gly Ser Gly Asp Ala Leu Thr Leu Ala Ser Gln Ser Thr	
10	15
gnn ttt aca gac gtg agc tac tgc gcc cgg ccc caa ata gat ttt tca	390
Xaa Phe Thr Asp Val Ser Tyr Cys Ala Arg Pro Gln Ile Asp Phe Ser	
25	30
aat gag gaa tat ctg tcc ata ttc tgg gac tct gtg ccc cac att ttt	438
Asn Glu Tyr Leu Ser Ile Phe Trp Asp Ser Val Pro His Ile Phe	
40	45
act	50
Thr	
55	

<210> 2541  
 <211> 185  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 25..183

<400> 2541

tggaatcgaa aggadtagaa tgga atg gat cgt tat gga aag aca tcg aat	51
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004220" 666ET560

	Met	Asp	Arg	Tyr	Gly	Lys	Thr	Ser	Asn	
	1				5					
gga atg gaa ttg act cga atg gaa tgg act gga atg gaa cgg act cga										99
Gly Met Glu Leu Thr Arg Met Glu Trp Thr Gly Met Glu Arg Thr Arg										
10	15			20		25				
atg gaa tgg act gga atg gaa tgg att gaa cgg aat gga ctg gag agg										147
Met Glu Trp Thr Gly Met Glu Trp Ile Glu Arg Asn Gly Leu Glu Arg										
	30			35		40				
aat gga ctc gaa tgg aaa gga aac gag tgg aat gga at										185
Asn Gly Leu Glu Trp Lys Gly Asn Glu Trp Asn Gly										
	45			50						

<210> 2542  
 <211> 289  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 76..288

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ttgaaacaat ttcga atg tat aga gaa gtt gca aga cta cta caa aag act	111
Met Tyr Arg Glu Val Ala Arg Leu Leu Gln Lys Thr	
1	5
cct gca tgc ctt tct ttc ttt tct ttt ttt ttt kaa ttt ata att ttt	159
Pro Ala Cys Leu Ser Phe Phe Ser Phe Phe Phe Xaa Phe Ile Ile Phe	
15	20
ttt tyc ttt tat aga gat ggg gyc ttg cwa tgt tta cca ggc tgg cct	207
Phe Xaa Phe Tyr Arg Asp Gly Xaa Leu Xaa Cys Leu Pro Gly Trp Pro	
30	35
cga act cck ggt ckc aag cat tcc tcc cat ctc agc ctc cca aag tgc	255
Arg Thr Pro Gly Xaa Lys His Ser Ser His Leu Ser Leu Pro Lys Cys	
45	50
tgg gat tac agg sat gag cca cca tac ccg aca a	289
Trp Asp Tyr Arg Xaa Glu Pro Pro Tyr Pro Thr	
	65
	70

<210> 2543  
 <211> 242  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 19..240

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caacccgagt acaatgga atg gaa tgg aat gca atg gaa tgg aat ctt ccg	51
Met Glu Trp Asn Ala Met Glu Trp Asn Leu Pro	
1	5
	10

gaa tgg aat gga atg gaa tgg aat gga atg gaa tgc aat gga ttc aac	99
Glu Trp Asn Gly Met Glu Trp Asn Gly Met Glu Cys Asn Gly Phe Asn	
15 20 25	
tgt att gca atg gaa tgg aat aga atg gaa tgg aat gga atg gaa tgg	147
Cys Ile Ala Met Glu Trp Asn Arg Met Glu Trp Asn Gly Met Glu Trp	
30 35 40	
aat gga atg gaa tta aac cga ata gaa tgc aat gga atg gaa tgg aac	195
Asn Gly Met Glu Leu Asn Arg Ile Glu Cys Asn Gly Met Glu Trp Asn	
45 50 55	
gga aaa gaa cgg aac gga acg gaa cgt tgt gga atg gaa tgg gag gc	242
Gly Lys Glu Arg Asn Gly Thr Glu Arg Cys Gly Met Glu Trp Glu	
60 65 70	

<210> 2544  
 <211> 214  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 51..212

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Met Asp	
1	
aga ttt gga ttt ttt ttt aaa ttt cag att gac ttt ttc ctc tct ccc	104
Arg Phe Gly Phe Phe Phe Lys Phe Gln Ile Asp Phe Phe Leu Ser Pro	
5 10 15	
tac tac tcc tgt aaa tta ttt att aaa aty ctc aac aat atg cta att	152
Tyr Tyr Ser Cys Lys Leu Phe Ile Lys Ile Leu Asn Asn Met Leu Ile	
20 25 30	
gtc ata tat aag aga aat act cag cac aca gca cac ttt ttt ttc aat	200
Val Ile Tyr Lys Arg Asn Thr Gln His Thr Ala His Phe Phe Phe Asn	
35 40 45 50	
ttt ttc att ttt tt	214
Phe Phe Ile Phe	

<210> 2545  
 <211> 185  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 25..183

<400> 2545	
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Met Asp Arg Tyr Gly Lys Thr Ser Asn	
1 5	
gga atg gaa ttg act cga atg gaa tgg act gga atg gaa cgg act cga	99

Gly	Met	Glu	Leu	Thr	Arg	Met	Glu	Trp	Thr	Gly	Met	Glu	Arg	Thr	Arg	
10				15					20				25			
atg	gaa	tgg	act	gga	atg	gaa	tgg	att	gaa	cgg	aat	gga	ctg	gag	agg	147
Met	Glu	Trp	Thr	Gly	Met	Glu	Trp	Ile	Glu	Arg	Asn	Gly	Leu	Glu	Arg	
			30					35					40			
aat	gga	ctc	gaa	tgg	aaa	gga	aac	gag	tgg	aat	gga	at				185
Asn	Gly	Leu	Glu	Trp	Lys	Gly	Asn	Glu	Trp	Asn	Gly					
			45					50								

<210> 2546  
 <211> 228  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 44..226

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									Met	Leu	Val	His				
									1							
tgt	cac	cct	tca	gca	mtt	tgc	caa	gat	gtc	cat	tcw	att	ctc	cct	acc	103
Cys	His	Pro	Ser	Ala	Xaa	Cys	Gln	Asp	Val	His	Ser	Ile	Leu	Pro	Thr	
5				10					15				20			
agt	tta	tgg	att	cca	gha	ttt	tmw	gct	ttm	mtw	agg	maa	wkc	tca	gat	151
Ser	Leu	Trp	Ile	Pro	Xaa	Phe	Xaa	Ala	Xaa	Xaa	Arg	Xaa	Xaa	Ser	Asp	
			25					30					35			
ctg	tat	cta	tca	aat	gtg	tca	ctg	tct	mma	gat	ttt	gag	gwa	gca	ctt	199
Leu	Tyr	Leu	Ser	Asn	Val	Ser	Leu	Ser	Xaa	Asp	Phe	Glu	Xaa	Ala	Leu	
			40					45				50				
gcc	ctg	waa	cct	cag	ttc	tct	gtt	gag	cc							228
Ala	Leu	Xaa	Pro	Gln	Phe	Ser	Val	Glu								
			55				60									

<210> 2547  
 <211> 197  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 36..197

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										Met	Ser	His	Cys	Lys	Glu	
										1				5		
ttt	ttt	tta	aca	tct	ttt	tct	ttt	ttt	ctt	ttt	gag	agg	gag	tct	tgc	101
Phe	Phe	Leu	Thr	Ser	Phe	Ser	Phe	Phe	Leu	Phe	Glu	Arg	Glu	Ser	Cys	
			10					15				20				
tct	gtt	gcc	cag	gat	gga	gtg	cag	tgg	cgc	gat	ctc	ggc	tca	ctg	caa	149

Ser Val Ala Gln Asp Gly Val Gln Trp Arg Asp Leu Gly Ser Leu Gln  
 25 30 35  
 cct ctg cct ccc agg ttc aag aga ttc tcc tgc ctc agc ctc cca agc 197  
 Pro Leu Pro Pro Arg Phe Lys Arg Phe Ser Cys Leu Ser Leu Pro Ser  
 40 45 50

<210> 2548  
 <211> 256  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 87..254

<400> 2548  
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 Met Glu Pro Arg Thr Arg Ala Glu Ala  
 1 5  
 aga tgc twc cag gcc ggc gag atc ggc gcc tct cct gma gcy cbn tgc 161  
 Arg Cys Xaa Gln Ala Gly Glu Ile Gly Ala Ser Pro Xaa Ala Xaa Cys  
 10 15 20 25  
 tgc tct gaa agt ggt gac gaa agg aag aac ctc gag gag aaa agt gac 209  
 Cys Ser Glu Ser Gly Asp Glu Arg Lys Asn Leu Glu Glu Lys Ser Asp  
 30 35 40  
 ata aat gtt aca gtt ctt att gga agt aaa cwa gtc agt gaa ggt ac 256  
 Ile Asn Val Thr Val Leu Ile Gly Ser Lys Xaa Val Ser Glu Gly  
 45 50 55

<210> 2549  
 <211> 276  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 28..276

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 Met Ala Val Pro Ala Ala Leu Ile Leu  
 1 5  
 cgg gag agc ccc agc atg aag aaa gca gtg tca ctg ata aat gca ata 102  
 Arg Glu Ser Pro Ser Met Lys Lys Ala Val Ser Leu Ile Asn Ala Ile  
 10 15 20 25  
 gat aca gga aga ttt cca cgg ttg ctc act cgg att ctt caa aaa ctt 150  
 Asp Thr Gly Arg Phe Pro Arg Leu Leu Thr Arg Ile Leu Gln Lys Leu  
 30 35 40  
 cac ctg aag gct gag agc agt ttc agt gaa gaa gag gaa gaa aaa ctt 198  
 His Leu Lys Ala Glu Ser Ser Phe Ser Glu Glu Glu Glu Glu Lys Leu  
 45 50 55



caa gcg gca ttt tct cta gag aaa caa gat ctt cac cta gtt ctt gaa	246
Gln Ala Ala Phe Ser Leu Glu Lys Gln Asp Leu His Leu Val Leu Glu	
60 65 70	
aca ata tca ttt att tta gaa cag gca gtg	276
Thr Ile Ser Phe Ile Leu Glu Gln Ala Val	
75 80	

<210> 2550  
 <211> 403  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 173..403

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tcatgctgct agtgggtcct tcagagaatc tgtggacgct caagaggaaa tcaggaaagt	120
ggagaagaga gctacttatg ttcataaaga tggactaaat tccactgatc ac atg gtg	178
Met Val	

ccc gac act gaa agt tat gat gca gtt gaa atc atc cgc aag gtt gca	226
Pro Asp Thr Glu Ser Tyr Asp Ala Val Glu Ile Ile Arg Lys Val Ala	
5 10 15	
gtg cct cct cgc ctg tca gag cac aca cag aga tat gaa gcg gcc aac	274
Val Pro Pro Arg Leu Ser Glu His Thr Gln Arg Tyr Glu Ala Ala Asn	
20 25 30	
cga act gtt caa atg gct gaa aat ttc gtg aat gac cct gaa aat gaa	322
Arg Thr Val Gln Met Ala Glu Asn Phe Val Asn Asp Pro Glu Asn Glu	
35 40 45 50	
ata aac aga tgg ttc agg gaa ttt gag cat ggc cca gtt tct gaa gca	370
Ile Asn Arg Trp Phe Arg Glu Phe Glu His Gly Pro Val Ser Glu Ala	
55 60 65	
aag tca aat aga aga gtt tat gca aag gga gaa	403
Lys Ser Asn Arg Arg Val Tyr Ala Lys Gly Glu	
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<210> 2551  
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 <212> DNA  
 <213> Homo sapiens

<220>  
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 <222> 22..210

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Met Gln Val Leu Thr Lys Arg Tyr Pro Lys	
1 5 10	
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Asn	Cys	Leu	Leu	Thr	Val	Met	Asp	Arg	Tyr	Ala	Ala	Glu	Val	His	Asn	
				15				20					25			
atg	gag	cag	gtg	gtg	atg	atc	ccc	agc	ctt	ctg	cgg	gac	gtg	cag	ctg	147
Met	Glu	Gln	Val	Val	Met	Ile	Pro	Ser	Leu	Leu	Arg	Asp	Val	Gln	Leu	
			30				35					40				
agt	ggg	cct	ggg	ggc	cag	gcc	cag	gct	gag	gcc	cct	gat	ctc	tac	acc	195
Ser	Gly	Pro	Gly	Gly	Gln	Ala	Gln	Ala	Glu	Ala	Pro	Asp	Leu	Tyr	Thr	
		45					50					55				
tac	ttc	acc	atg	ctc												210
Tyr	Phe	Thr	Met	Leu												
				60												

<210> 2552  
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 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 72..281

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	Met	Pro	Gly	Arg	Gly	Arg	Cys	Pro	Asp	Cys	Gly	Ser	Thr			
	1			5					10							
gag	ctg	gtg	gaa	gac	tcg	cac	tat	tcg	cag	agc	cag	ctg	gtg	tgc	tcc	158
Glu	Leu	Val	Glu	Asp	Ser	His	Tyr	Ser	Gln	Ser	Gln	Leu	Val	Cys	Ser	
	15					20				25						
gac	tgc	ggc	tgc	gtg	gtc	acc	gag	ggg	gtc	ctt	acc	act	acc	ttc	agc	206
Asp	Cys	Gly	Cys	Val	Val	Thr	Glu	Gly	Val	Leu	Thr	Thr	Thr	Phe	Ser	
	30				35				40					45		
gac	gag	ggc	aat	ctc	cga	gag	gta	aca	tat	tcc	cga	agc	aca	ggg	gaa	254
Asp	Glu	Gly	Asn	Leu	Arg	Glu	Val	Thr	Tyr	Ser	Arg	Ser	Thr	Gly	Glu	
			50					55					60			
aac	gaa	caa	gtt	agt	cgc	agc	cag	cgg	g							282
Asn	Glu	Gln	Val	Ser	Arg	Ser	Gln	Arg								
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 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 191..355

<400> 2553																
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caattgttaa	catcccagaa	gacatat	tttt	taaccagtt	gctgggaaga	acatgtgctg										180

aagtataagg atg gaa tca cta cac gga gat gac ttg att gtg act cca 229  
 Met Glu Ser Leu His Gly Asp Asp Leu Ile Val Thr Pro  
 1 5 10  
 ttt gct cag gtc ttg gcc agt ctg cga act gta cga aac aac ttt gct 277  
 Phe Ala Gln Val Leu Ala Ser Leu Arg Thr Val Arg Asn Asn Phe Ala  
 15 20 25  
 gca tta act aat ttg caa gat cga gca cct agc aaa aga tca ccc atg 325  
 Ala Leu Thr Asn Leu Gln Asp Arg Ala Pro Ser Lys Arg Ser Pro Met  
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 Cys Thr Asn His Pro Ser Thr Lys Pro Arg  
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<210> 2554  
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 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 257..418

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 tggttgacat cgagtacaga tacaactgca tggctccttc cttgcgcca gagaggtttg 180  
 ccttttagatc tcaynaaagc ccagcaaacc actgaggcct tgtattcagc tgagcagcaa 240  
 gaatgaagcc agtggga atg gtg gcc ccg gct gtc cag gag aag aag gtg aaa 292  
 Met Val Ala Pro Ala Val Gln Glu Lys Lys Val Lys  
 1 5 10  
 aag cgg gtg tcc ttc gca gac aac cag ggg ctg gcc ctg aca atg gtc 340  
 Lys Arg Val Ser Phe Ala Asp Asn Gln Gly Leu Ala Leu Thr Met Val  
 15 20 25  
 aaa gtg ttc tcg gaa ttc grt gac ccg cta gat atg cca ttc aac atc 388  
 Lys Val Phe Ser Glu Phe Xaa Asp Pro Leu Asp Met Pro Phe Asn Ile  
 30 35 40  
 acc gag ctc cta gac aac att gtg agc ttg ac 420  
 Thr Glu Leu Leu Asp Asn Ile Val Ser Leu  
 45 50

<210> 2555  
 <211> 229  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 29..229

<400> 2555  
 tgccatgagg tcttgattgt ctgcattt atg aat gaa act gac cta aat cac 52  
 Met Asn Glu Thr Asp Leu Asn His

004220"656E560

```

          1          5
ctg tta cct cca gtt tcc aga ttg ttt gaa ctt ctc tgg ccg cac aat      100
Leu Leu Pro Pro Val Ser Arg Leu Phe Glu Leu Leu Trp Pro His Asn
   10          15          20
aca gga agg rag rct waa agc rgc aaa ggg acc tac agc gtc tgc agc      148
Thr Gly Arg Xaa Xaa Xaa Ser Xaa Lys Gly Thr Tyr Ser Val Cys Ser
   25          30          35          40
atg ggc tgg tta act agg att gtc tgt ctt ttc tgg gag tat tac tta      196
Met Gly Trp Leu Thr Arg Ile Val Cys Leu Phe Trp Glu Tyr Tyr Leu
          45          50          55
cag caa gag caa act atc aga atg gga aga act      229
Gln Gln Glu Gln Thr Ile Arg Met Gly Arg Thr
          60          65
```

<210> 2556  
<211> 187  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 4..186

```

<400> 2556
aca atg gct cat tca cac cac agg cag tgg aag cta act gtc agc ggg      48
  Met Ala His Ser His His Arg Gln Trp Lys Leu Thr Val Ser Gly
    1          5          10          15
agc cca gct ggg gct gtc aac cac ccc tcc cct tgc gaa cat gtg gct      96
Ser Pro Ala Gly Ala Val Asn His Pro Ser Pro Cys Glu His Val Ala
          20          25          30
tct cca gac ttc tta cat atg gct ggc ttc ctc cag agc aag cat cct      144
Ser Pro Asp Phe Leu His Met Ala Gly Phe Leu Gln Ser Lys His Pro
          35          40          45
gag aga gcc agg cag aag ctt ccc agc ctc aca agt ccc agg c      187
Glu Arg Ala Arg Gln Lys Leu Pro Ser Leu Thr Ser Pro Arg
          50          55          60
```

<210> 2557  
<211> 298  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 137..298

```

<400> 2557
cttgaagacc ttccagaccc ccaacctctg gaaggatgcg cacatccagg aaatagtgg      60
gaagtttggc ttggtgtgcg tgggccgagt aggtcacgac ccaaaagggtt acatcgcaga      120
atctcccatc ctacgg atg cac cag cac aac att cab dtg gcc aag gag cct      172
          Met His Gln His Asn Ile Xaa Xaa Ala Lys Glu Pro
            1          5          10
```

# SECRET

```
<220>  
<221> CDS  
<222> 133..339
```

```
<210> 2559
<211> 335
<212> DNA
<213> Homo sapiens
```

```

<400> 2559
tgatcatctg ttttctcggg gtggcagacg cagccatgtc ttggtatcac caccatgtg      60
acagctactc ctggacaact gggacaaatg tcagggccag agccatgaag gtgtggtamc    120
cccttgatca gcttctccac gtcctggccc caggtcttgg cggggagggg gtcac atg      178
                                     Met

```

```

          1
agt aca gag gtc aaa tat cta cca ccc tcc agc cct gag cac cag aag
Ser Thr Glu Val Lys Tyr Leu Pro Pro Ser Ser Pro Glu His Gln Lys
          5          10          15
ctc tgc aac caa cgt ccc cag gaa tgg cct tcc cct tgc tgc tca ggt
Leu Cys Asn Gln Arg Pro Gln Glu Trp Pro Ser Pro Cys Cys Ser Gly
          20          25          30
cat act tct gga gga aga gaa agc tca ctc cat att ttc ccc acc act
His Thr Ser Gly Gly Arg Glu Ser Ser Leu His Ile Phe Pro Thr Thr
          35          40          45
cta cac cga aag c
Leu His Arg Lys
50

```

<210> 2560

<211> 422

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 253..420

<400> 2560

```

taatctatatt atttaataag tttagcataa gaaacttagg caaagcagtt tcttgatatt
tgagttttgt atctggctta cttaaatacct tgtgagttat gaagttcctt aggatagata
attcaaatta ggtttaagta gtcttggggg aggggactac ggagtkaaac tacttaaatt
ttctaagtat aaabtttaaa tcaatagcaa aacaggatta agataaatgt gggcataatt
aggtgtattg ac atg cct ttg atg tat caa act gag ggg gaa cca cta aat
          1          5          10
Met Pro Leu Met Tyr Gln Thr Glu Gly Glu Pro Leu Asn
cca gtc aag cag ttt cat aag atc ttc aca aaa tgc ctc tac tng cgg
Pro Val Lys Gln Phe His Lys Ile Phe Thr Lys Cys Leu Tyr Xaa Arg
          15          20          25
aat cat gtt gat ttt agt cct gct gat gtg tgt acc gtt agc act ttg
Asn His Val Asp Phe Ser Pro Ala Asp Val Cys Thr Val Ser Thr Leu
          30          35          40          45
gtt tat caa tat ttg act ggc tca aat gat gga ta
Val Tyr Gln Tyr Leu Thr Gly Ser Asn Asp Gly
          50          55

```

<210> 2561

<211> 314

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 157..312

<400> 2561

```

gtcattatgc ttactaacgt tcgggacgtc tcccgggctg cttgggcgag gagaggcagg

```

004220" 666E7560

```

gggtgtgtgac cccgggtggtt actgtgctcg cgtagagcac ctagggcctg ctgaagccct 120
ccctcgcccg cgcctctcct tagtccttga gatgag atg gca agt tac agc ggc 174
                                Met Ala Ser Tyr Ser Gly
                                1           5
ttc tcc ggc ctg ctg gag att cgc tac ggg cca gga cac cgc agc tgc 222
Phe Ser Gly Leu Leu Glu Ile Arg Tyr Gly Pro Gly His Arg Ser Cys
      10           15           20
ctt ccc caa ttc gct ttc ttt ccg cag ccg ccg ctg ccc cga ccc cgg 270
Leu Pro Gln Phe Ala Phe Phe Pro Gln Pro Pro Leu Pro Arg Pro Arg
      25           30           35
atc tgc atg tgg aag tac ctg gac gtc cat tcc atg cac cag ct 314
Ile Cys Met Trp Lys Tyr Leu Asp Val His Ser Met His Gln
      40           45           50

```

<210> 2562  
 <211> 251  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 67..249

```

<400> 2562
atcagaaaca gaaaacaaaa taccacatgt tctcacttat aagtagaagc taaacattga 60
gtacac atg gat aca aag aag gga acc gca gac act ggg gcc tac ctg 108
      Met Asp Thr Lys Lys Gly Thr Ala Asp Thr Gly Ala Tyr Leu
      1           5           10
agg tcg gag cat gga agg agg gtg agg atc aaa aaa cta cct atc tgg 156
Arg Ser Glu His Gly Arg Arg Val Arg Ile Lys Lys Leu Pro Ile Trp
      15           20           25           30
tac tat gct ttt tat ctg gat gat gaa ata atc tgt aca aca aac cct 204
Tyr Tyr Ala Phe Tyr Leu Asp Asp Glu Ile Ile Cys Thr Thr Asn Pro
      35           40           45
ggg gac atg caa ttt acc tat ata gca agc cta cac atg tgc ccc aa 251
Gly Asp Met Gln Phe Thr Tyr Ile Ala Ser Leu His Met Cys Pro
      50           55           60

```

<210> 2563  
 <211> 263  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 26..262

```

<400> 2563
cgagattggg aagatccgag accaa atg gct gcc aca gaa cag gac aag acc 52
                                Met Ala Ala Thr Glu Gln Asp Lys Thr
                                1           5
ccc ttg cag cag aag ctg gat gag ttt ggg gag cag ctc tcc aag gtc 100

```

```

Pro Leu Gln Gln Lys Leu Asp Glu Phe Gly Glu Gln Leu Ser Lys Val
10          15          20          25
atc tcc ctc atc tgt gtg gct gtc tgg ctt atc aac att ggc cac ttc      148
Ile Ser Leu Ile Cys Val Ala Val Trp Leu Ile Asn Ile Gly His Phe
          30          35          40
aac gac ccc gtc cat ggg ggc tcc tgg ttc cgc ggg gcc atc tac tac      196
Asn Asp Pro Val His Gly Gly Ser Trp Phe Arg Gly Ala Ile Tyr Tyr
          45          50          55
ttt aag att gcc gtg gcc ttg gct gtg gct gcc atc ccc gaa gtc ttc      244
Phe Lys Ile Ala Val Ala Leu Ala Val Ala Ala Ile Pro Glu Val Phe
          60          65          70
ctg cag tca tca cca cac c
Leu Gln Ser Ser Pro His
          75

```

<210> 2564

<211> 278

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 83..277

<400> 2564

```

tcaatgaact agagaccgct gtagggaggt tgtgggaact gttcagaacg gcttaatctg      60
ggaggacacg acttccacta ga atg cat gcg ctg aac gac aat tcg ttt tca      112
          Met His Ala Leu Asn Asp Asn Ser Phe Ser
          1          5          10
cct caa aaa cct gta ctg cag ttt tgt ctc tcc ttc cgt acg atg acc      160
Pro Gln Lys Pro Val Leu Gln Phe Cys Leu Ser Phe Arg Thr Met Thr
          15          20          25
caa gat ggc gga ccc gtg att gaa aac cca gat tca aga tgg cga ctt      208
Gln Asp Gly Gly Pro Val Ile Glu Asn Pro Asp Ser Arg Trp Arg Leu
          30          35          40
cct gct tcc ccg ata gcg tcg cgc gtg gcc acc gag gcc acg cct act      256
Pro Ala Ser Pro Ile Ala Ser Arg Val Ala Thr Glu Ala Thr Pro Thr
          45          50          55
tcc ggc tac ccc ggc tac tcc g
Ser Gly Tyr Pro Gly Tyr Ser
          60          65

```

<210> 2565

<211> 359

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 189..359

<400> 2565



gcacaaagct ctagaaaact atgaaagtgc cttcagcata aacaaatcca gaaatctccc 60  
aggacaaatc atttgccaac tgaaagawag gcctgggggtt tatggtttcc cttggagcta 120  
gaggtagaaa ctctccgggg ggataagtca gaccaggcac cagtggatgt caccgcagca 180  
aaacaagg atg gac gag gag tca cta gat ggg ctg ctc ttc aaa gac cac 230  
Met Asp Glu Glu Ser Leu Asp Gly Leu Leu Phe Lys Asp His  
1 5 10  
gac ttc tct tct gac ttg ttg agg cag ctc aac agc tta agg caa agc 278  
Asp Phe Ser Ser Asp Leu Leu Arg Gln Leu Asn Ser Leu Arg Gln Ser  
15 20 25 30  
agg atc ctg act gat gtg agc atc tgt gcc ggt gcc cgg gag atc ccc 326  
Arg Ile Leu Thr Asp Val Ser Ile Cys Ala Gly Ala Arg Glu Ile Pro  
35 40 45  
tgc cam cgs aac gtg ctg gcc tcc agc agc ccc 359  
Cys Xaa Arg Asn Val Leu Ala Ser Ser Ser Pro  
50 55

<210> 2566  
<211> 368  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 191..367

<400> 2566  
aaaaaattgc tgcagccggg tcttgtcagg tggctgctgg tggctcccca ccggattttc 60  
cttctccctc tctctatctc cacagatccc ttcccaagag gagtctcctg ctaaaacttc 120  
atcatctcaa gttgacctgc cacttcaccc aaggaggcaa gctcttgctt gtgacagtgt 180  
atttgccaac atg gca ccc aaa aag aag att gtc aaa aag aac aaa gga 229  
Met Ala Pro Lys Lys Lys Ile Val Lys Lys Asn Lys Gly  
1 5 10  
gat atc aat gag atg act ata atc gta gaa gat agc ccc cta aac aaa 277  
Asp Ile Asn Glu Met Thr Ile Ile Val Glu Asp Ser Pro Leu Asn Lys  
15 20 25  
ctg aat gct ttg aat ggg ctc cta gag gga ggc aat ggc ctt agc tgc 325  
Leu Asn Ala Leu Asn Gly Leu Leu Glu Gly Gly Asn Gly Leu Ser Cys  
30 35 40 45  
att tct tct gaa cta cag atg ctt ctt atg gcc cca acc tct t 368  
Ile Ser Ser Glu Leu Gln Met Leu Leu Met Ala Pro Thr Ser  
50 55

<210> 2567  
<211> 186  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 12..185

<400> 2567

taagtgaaaa c atg caa tat ttg att ttc tgt tcc tgt gct aat ttg ctt 50  
 Met Gln Tyr Leu Ile Phe Cys Ser Cys Ala Asn Leu Leu  
 1 5 10  
 agg ata atg gcc tcc agg ggc atc cat gtt tct gca aag ggc ctg att 98  
 Arg Ile Met Ala Ser Arg Gly Ile His Val Ser Ala Lys Gly Leu Ile  
 15 20 25  
 tca ttc ttt ttt atg gct gtg aag tat tcc atg gtg tat atg tac cac 146  
 Ser Phe Phe Phe Met Ala Val Lys Tyr Ser Met Val Tyr Met Tyr His  
 30 35 40 45  
 ata ttc ttt atc caa tcc agc atc agt gag cac cca cgg g 186  
 Ile Phe Phe Ile Gln Ser Ser Ile Ser Glu His Pro Arg  
 50 55

<210> 2568  
 <211> 177  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 5..175

<400> 2568  
 taag atg agg tgg cag aat gag gtt gtg gcc aaa tca agc aga gtt tgg 49  
 Met Arg Trp Gln Asn Glu Val Val Ala Lys Ser Ser Arg Val Trp  
 1 5 10 15  
 ctt tta tta aga tca gtc tgg ttg cta gaa ttg gag gtg ggt aaa aga 97  
 Leu Leu Leu Arg Ser Val Trp Leu Leu Glu Leu Glu Val Gly Lys Arg  
 20 25 30  
 gta gat gct gac agt cat cag gtg aga gag gat ggt gtt ata gat tat 145  
 Val Asp Ala Asp Ser His Gln Val Arg Glu Asp Gly Val Ile Asp Tyr  
 35 40 45  
 ggc agt agc agt gga gat aga aag agg tgt cg 177  
 Gly Ser Ser Ser Gly Asp Arg Lys Arg Cys  
 50 55

<210> 2569  
 <211> 187  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 19..186

<400> 2569  
 aatagtgtt ctctgcaa atg aaa tct cca gcc atc aca gcc acc cta gag 51  
 Met Lys Ser Pro Ala Ile Thr Ala Thr Leu Glu  
 1 5 10  
 gga aaa aat aga aca ctt tac tta cag tcg gta acc tct att gaa gaa 99  
 Gly Lys Asn Arg Thr Leu Tyr Leu Gln Ser Val Thr Ser Ile Glu Glu  
 15 20 25

cga aca agg cca aat ctc tcc aaa aca ttg aaa gaa ttg ggg ctt gtt 147  
 Arg Thr Arg Pro Asn Leu Ser Lys Thr Leu Lys Glu Leu Gly Leu Val  
           30                  35                  40  
 gat gga caa gaa ctg gcg gtt gct gat gtc acc acc cca a 187  
 Asp Gly Gln Glu Leu Ala Val Ala Asp Val Thr Thr Pro  
           45                  50                  55

<210> 2570  
 <211> 219  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 50..217

<400> 2570  
 cagtcaaggg gagatcagtg tggccagcat cgatgatcag gaagaactg atg gcc aca 58  
   Met Ala Thr  
   1

gat agt gct att gat att ttg ggc ttt act aat gaa gaa aag gtc tcc 106  
 Asp Ser Ala Ile Asp Ile Leu Gly Phe Thr Asn Glu Glu Lys Val Ser  
           5                  10                  15

att tac aag ctc acg ggg gct gtg atg cat tat ggg aac cta aaa ttt 154  
 Ile Tyr Lys Leu Thr Gly Ala Val Met His Tyr Gly Asn Leu Lys Phe  
           20                  25                  30                  35

aag caa aag cag cgt gag gag caa gca gag cca gat ggc aca gaa gtt 202  
 Lys Gln Lys Gln Arg Glu Glu Gln Ala Glu Pro Asp Gly Thr Glu Val  
                   40                  45                  50

gct gac aag gcg gcc cg 219  
 Ala Asp Lys Ala Ala  
                   55

<210> 2571  
 <211> 174  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 16..174

<400> 2571  
 atatttttag tagaa atg ggg ttt cac cgt gtt ggg cag gct ggt ctc gac 51  
                   Met Gly Phe His Arg Val Gly Gln Ala Gly Leu Asp  
                   1                  5                  10

tca ggt ggt ctg ccc acc tca gcc tcc caa agt gtt ggg att aca ggt 99  
 Ser Gly Gly Leu Pro Thr Ser Ala Ser Gln Ser Val Gly Ile Thr Gly  
           15                  20                  25

gtg agc cac tgc agg cag cca ttt ttt ttt aac cac ttt act gtc ctt 147  
 Val Ser His Cys Arg Gln Pro Phe Phe Phe Asn His Phe Thr Val Leu  
           30                  35                  40

ttt tcc cca gaa tat ata tgc ctg act  
Phe Ser Pro Glu Tyr Ile Cys Leu Thr  
45 50

174

<210> 2572  
<211> 246  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 9..245

<400> 2572  
gcgcagtg atg gag tgt gca gat gct gct cat ggc ctc aaa ggc cac atc 50  
Met Glu Cys Ala Asp Ala Ala His Gly Leu Lys Gly His Ile  
1 5 10  
att tca gat gga ggt tgc agc tgt cct ggg gat gtg gcc aag gct ttt 98  
Ile Ser Asp Gly Gly Cys Ser Cys Pro Gly Asp Val Ala Lys Ala Phe  
15 20 25 30  
ggg gca gga gct gac ttc gtg atg ctg ggt ggc atg ctg gct ggg cac 146  
Gly Ala Gly Ala Asp Phe Val Met Leu Gly Gly Met Leu Ala Gly His  
35 40 45  
agt gag tca ggt ggt gag ctc atc gag agg gat ggc aag aag tac aag 194  
Ser Glu Ser Gly Gly Glu Leu Ile Glu Arg Asp Gly Lys Lys Tyr Lys  
50 55 60  
ctc ttc tat gga atg agt tct gaa atg gcc atg aag aag tat gct ggg 242  
Leu Phe Tyr Gly Met Ser Ser Glu Met Ala Met Lys Lys Tyr Ala Gly  
65 70 75  
agc a  
Ser 246

<210> 2573  
<211> 306  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 69..305

<400> 2573  
aaaagatttc tgctgtcaca gagcttagaa ctgtgtgtgt ttattaatgt ttctctcccc 60  
tagactat atg cct gtt act ggt att cat tct gta cag ccc tca ttc tcc 110  
Met Pro Val Thr Gly Ile His Ser Val Gln Pro Ser Phe Ser  
1 5 10  
aag cct aat tgc act att att acg cta cca cgg aac aaa aat ttt caa 158  
Lys Pro Asn Cys Thr Ile Ile Thr Leu Pro Arg Asn Lys Asn Phe Gln  
15 20 25 30  
gga cta tac agc cca aaa ttt tgt tcg agt gag cat ttg tta att cat 206  
Gly Leu Tyr Ser Pro Lys Phe Cys Ser Ser Glu His Leu Leu Ile His  
35 40 45

ata tac cac acg aaa ttt tct tct tta aaa aag ara aaa aaa agg cct 254  
 Ile Tyr His Thr Lys Phe Ser Ser Leu Lys Lys Xaa Lys Lys Arg Pro  
                   50                  55                  60  
 gtg gcg tgg ctc ccg tct gta atc cca gca ctt tcg gag gcc aag tta 302  
 Val Ala Trp Leu Pro Ser Val Ile Pro Ala Leu Ser Glu Ala Lys Leu  
                   65                  70                  75  
 ggc a  
 Gly 306

<210> 2574  
 <211> 166  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 3..164

<400> 2574  
 tt atg tct act ggg aaa tgg agg cat caa tta agt gac agg tcc att 47  
   Met Ser Thr Gly Lys Trp Arg His Gln Leu Ser Asp Arg Ser Ile  
    1                  5                  10                  15  
 agt agt cac tat atc acc tct tgc ttt aaa ata ata cct cgt tgc ttg 95  
 Ser Ser His Tyr Ile Thr Ser Cys Phe Lys Ile Ile Pro Arg Cys Leu  
                   20                  25                  30  
 gag aca agg gtt ggt tac aag cag ctt gaa atg tta ctt tgt gtc gta 143  
 Glu Thr Arg Val Gly Tyr Lys Gln Leu Glu Met Leu Leu Cys Val Val  
                   35                  40                  45  
 tcc aaa gaa cca cac ccc aca ct  
 Ser Lys Glu Pro His Pro Thr 166  
                   50

<210> 2575  
 <211> 172  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 16..171

<400> 2575  
 cttcataaca agaaa atg agc ctg aga aag tgt ggt tac act ttg ctg aca 51  
                   Met Ser Leu Arg Lys Cys Gly Tyr Thr Leu Leu Thr  
                   1                  5                  10  
 gct cca cgt gct gtt gcc aga gtg agc tcc aga acc aaa gtg gca gtg 99  
 Ala Pro Arg Ala Val Ala Arg Val Ser Ser Arg Thr Lys Val Ala Val  
                   15                  20                  25  
 ggc cca tcc acc tgc ctt gag tgt aag tca cat atg atg cta tcc aca 147  
 Gly Pro Ser Thr Cys Leu Glu Cys Lys Ser His Met Met Leu Ser Thr  
                   30                  35                  40  
 gtt caa tct aac aca ccc tgc aac c 172

Val Gln Ser Asn Thr Pro Cys Asn  
45 50

<210> 2576  
<211> 337  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 28..336

<400> 2576

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agctgtggac agcttcccgg acacagg atg gaa gga cca cgg gct gcc tgt ctc      54
                        Met Glu Gly Pro Arg Ala Ala Cys Leu
                        1          5
ttg aaa gag gct cga gaa aga cag gca aga gaa ccc caa ggg agc ggg      102
Leu Lys Glu Ala Arg Glu Arg Gln Ala Arg Glu Pro Gln Gly Ser Gly
10          15          20          25
gaa agg aac ggg agg gct ttg ggg ctg tgg ctt gag tgt gaa cag att      150
Glu Arg Asn Gly Arg Ala Leu Gly Leu Trp Leu Glu Cys Glu Gln Ile
          30          35          40
gtc tcc cct tgt ctg tct gtc tcc cct ggt ggg gac ccc aac cgc aac      198
Val Ser Pro Cys Leu Ser Val Ser Pro Gly Gly Asp Pro Asn Arg Asn
          45          50          55
aat gca ccc gga aat ccg gca gtc caa ggc aga aac ggc agg cca gcg      246
Asn Ala Pro Gly Asn Pro Ala Val Gln Gly Arg Asn Gly Arg Pro Ala
          60          65          70
aag tgt gtg ctt gtc cct att ttg gtt gtg atg gtt tgg ggg gga tat      294
Lys Cys Val Leu Val Pro Ile Leu Val Val Met Val Trp Gly Gly Tyr
          75          80          85
gag aca gcc aca gcg cgg gag gcs tgg aca gac gga cat gcc g      337
Glu Thr Ala Thr Ala Arg Glu Ala Trp Thr Asp Gly His Ala
90          95          100

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<210> 2577  
<211> 260  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 68..259

<400> 2577

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catcgtttct gaggaagaac aagcagctaa caaaggcgag gagaagaaag acgacgagaa      60
cattccg atg gag aca gag gag aca cac ctt gaa gaa aca aca gag agc      109
      Met Glu Thr Glu Glu Thr His Leu Glu Glu Thr Thr Glu Ser
      1          5          10
caa cag aat ggt gaa gaa ggc acg tct act cct gag gac aag gag agt      157
Gln Gln Asn Gly Glu Glu Gly Thr Ser Thr Pro Glu Asp Lys Glu Ser
15          20          25          30

```



Met	Glu	Phe	Glu	Ile	Glu	Pro	Asp	Lys	Glu	Cys	Lys	Ser	Leu	Ser		
1				5					10					15		
cct	ggg	aaa	gag	aat	gtc	agt	gct	tta	gac	atg	gaa	aag	gag	tct	gag	96
Pro	Gly	Lys	Glu	Asn	Val	Ser	Ala	Leu	Asp	Met	Glu	Lys	Glu	Ser	Glu	
			20					25					30			
gaa	aaa	gaa	gaa	aaa	gaa	tct	gag	ccc	caa	cct	gag	cct	gtg	gct	caa	144
Glu	Lys	Glu	Glu	Lys	Glu	Ser	Glu	Pro	Gln	Pro	Glu	Pro	Val	Ala	Gln	
			35				40					45				
cct	cag	cct	cag	tct	cag	ccc	cag	ctt	cag	ctt	caa	tcc	cag	tcc	caa	192
Pro	Gln	Pro	Gln	Ser	Gln	Pro	Gln	Leu	Gln	Leu	Gln	Ser	Gln	Ser	Gln	
			50				55				60					
cca	gta	ctc	cag	tcc	cag	cct	ccc	tct	cag	cct	gag	gat	ttg	tca	tta	240
Pro	Val	Leu	Gln	Ser	Gln	Pro	Pro	Ser	Gln	Pro	Glu	Asp	Leu	Ser	Leu	
	65				70					75						
gct	gtt	tta	cag	cca	aca	ccc	cca									264
Ala	Val	Leu	Gln	Pro	Thr	Pro	Pro									
80				85												

<210> 2580  
 <211> 318  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 121..318

<400> 2580																
atacagtagt	accagtgaag	actactaacc	agattatagg	tttagactgg	caagactttg											60
gactgaccca	agaccgaatc	tggtttattg	taggtaaaag	agaacctgct	ttcatgcaag											120
atg	ctg	ctg	cac	tgc	aaa	cgg	gat	gag	ctt	cgg	aaa	ctg	tgg	att	gaa	168
Met	Leu	Leu	His	Cys	Lys	Arg	Asp	Glu	Leu	Arg	Lys	Leu	Trp	Ile	Glu	
1			5					10					15			
gga	att	gag	cat	aag	cat	gtc	ctg	aac	ttg	ttg	gat	gaa	att	gag	aat	216
Gly	Ile	Glu	His	Lys	His	Val	Leu	Asn	Leu	Leu	Asp	Glu	Ile	Glu	Asn	
			20				25				30					
atc	aag	caa	gtg	cct	caa	aag	ctg	gaa	cag	tgc	atg	gcc	agc	aag	cac	264
Ile	Lys	Gln	Val	Pro	Gln	Lys	Leu	Glu	Gln	Cys	Met	Ala	Ser	Lys	His	
		35			40				45							
tat	ctc	agt	gcc	act	gac	atg	ttg	gtg	tca	gca	gtt	gag	tct	ttg	gtg	312
Tyr	Leu	Ser	Ala	Thr	Asp	Met	Leu	Val	Ser	Ala	Val	Glu	Ser	Leu	Val	
	50				55					60						
ggc	ccc															318
Gly	Pro															
65																

<210> 2581  
 <211> 245  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS



<222> 91..243

<400> 2581

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tattatccat tacataacat acatgcttga ttatttgctt caaggaaata cacctttata      60
agtaatactc aataactact ggggtttgaga atg aag gtg tca gaa cga atg aga      114
                               Met Lys Val Ser Glu Arg Met Arg
                               1           5
ttg tcc tat gaa aga aga ggc agg agc cag gga gga gga tcc cac ctg      162
Leu Ser Tyr Glu Arg Arg Gly Arg Ser Gln Gly Gly Gly Ser His Leu
   10           15           20
gcc ggg gct cag cca gga ggc agg gcc att ggg gca ggg tgg cag tcc      210
Ala Gly Ala Gln Pro Gly Gly Arg Ala Ile Gly Ala Gly Trp Gln Ser
   25           30           35           40
aag gaa ccg ctc tgg gaa ggt ttg caa agg tcg ga                        245
Lys Glu Pro Leu Trp Glu Gly Leu Gln Arg Ser
           45           50
```

<210> 2582

<211> 288

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 32..286

<400> 2582

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ctaaaaaagc agatgcagcc cttctgacta a atg gga aaa act gct gaa cgt      52
                               Met Gly Lys Thr Ala Glu Arg
                               1           5
agg cac tgt ata gac agg tat gcc atc aac tac caa ttc cgc att ttt      100
Arg His Cys Ile Asp Arg Tyr Ala Ile Asn Tyr Gln Phe Arg Ile Phe
   10           15           20
atc ggt tta ggt ttt ttt aac gaa ggt tgg aaa aaa gct ggg aac agc      148
Ile Gly Leu Gly Phe Phe Asn Glu Gly Trp Lys Lys Ala Gly Asn Ser
   25           30           35
aga cac caa gcc aga aca gtc tgt gtg ggt tcg tgt tgc ttt gtt atc      196
Arg His Gln Ala Arg Thr Val Cys Val Gly Ser Cys Cys Phe Val Ile
   40           45           50           55
agc tgc tct tca cca tgg agg ctt acg tgg tca cag ccc tgg tgc tgt      244
Ser Cys Ser Ser Pro Trp Arg Leu Thr Trp Ser Gln Pro Trp Cys Cys
           60           65           70
gtt cag cca ggc ctg gca ccc act gag cac aca aac agt cac tc      288
Val Gln Pro Gly Leu Ala Pro Thr Glu His Thr Asn Ser His
           75           80           85
```

<210> 2583

<211> 362

<212> DNA

<213> Homo sapiens

<220>

<221> CDS  
<222> 79..360

<400> 2583

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agatcgcgagg cgagcggasg cnaacactcg cttgggttggg gagatcgggcg cttggccgga      60
tgagcacaag cctggggag atg gca gtg atg gaa atg gcc tgc cca ggt gcc      111
                Met Ala Val Met Glu Met Ala Cys Pro Gly Ala
                1                5                10
cct ggc tca gca gtg ggg cag cag aag gaa ctc ccc aaa gcc aag gag      159
Pro Gly Ser Ala Val Gly Gln Gln Lys Glu Leu Pro Lys Ala Lys Glu
                15                20                25
aag acg ccg cca ctg ggg aag aaa cag agc tcc gtc tac aag ctt gag      207
Lys Thr Pro Pro Leu Gly Lys Lys Gln Ser Ser Val Tyr Lys Leu Glu
                30                35                40
gcc gtg gag aag agc cct gtg ttc tgc gga aag tgg gag atc ctg aat      255
Ala Val Glu Lys Ser Pro Val Phe Cys Gly Lys Trp Glu Ile Leu Asn
                45                50                55
gac gtg att acc aag ggc aca gcc aag gaa ggc tcc gag gca ggg cca      303
Asp Val Ile Thr Lys Gly Thr Ala Lys Glu Gly Ser Glu Ala Gly Pro
60                65                70                75
gct gcc atc tct atc atc gcc cag gct gag tgt gag aat agc caa gag      351
Ala Ala Ile Ser Ile Ile Ala Gln Ala Glu Cys Glu Asn Ser Gln Glu
                80                85                90
ttc agc cca cg
Phe Ser Pro

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<210> 2584  
<211> 252  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 49..252

<400> 2584

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tggaagaaca ttccatgttc atgggtagga agaatacaata tcgtgaaa atg gcc ata      57
                Met Ala Ile
                1
ctg ccc aag gta att tac aga ttc aat gcc atc ccc atc aag cta cca      105
Leu Pro Lys Val Ile Tyr Arg Phe Asn Ala Ile Pro Ile Lys Leu Pro
                5                10                15
atg tct ttc ttc aca gaa ttg gaa aaa act act tta aag ttc ata tgg      153
Met Ser Phe Phe Thr Glu Leu Glu Lys Thr Thr Leu Lys Phe Ile Trp
20                25                30                35
aac caa aaa rga gcc cgc att gcc arg tca wtc cta agc caa arg amc      201
Asn Gln Lys Xaa Ala Arg Ile Ala Xaa Ser Xaa Leu Ser Gln Xaa Xaa
                40                45                50
aaa gct ggr ggc wtc ama cta cct gac ttc aaa cta tac tac aag gct      249
Lys Ala Gly Gly Xaa Xaa Leu Pro Asp Phe Lys Leu Tyr Tyr Lys Ala
                55                60                65
cca

```

252

Pro

&lt;210&gt; 2585

&lt;211&gt; 313

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 65..313

&lt;400&gt; 2585

```

cattaagggg ttgggacaag aagagactcc tgtgagatca gcagacctcg tgtttaagga      60
gaga atg cct gcc tgc aac act cat gga gag gga cac ttc ctg gcc cca      109
  Met Pro Ala Cys Asn Thr His Gly Glu Gly His Phe Leu Ala Pro
    1           5           10           15
cct gct aaa tac ctc caa act ctg ggc agg cgc ctg cat tct caa cac      157
Pro Ala Lys Tyr Leu Gln Thr Leu Gly Arg Arg Leu His Ser Gln His
    20           25           30
agg act tcc ctt aac agt ttc cgg atc agt gac cac cac cac gtt cag      205
Arg Thr Ser Leu Asn Ser Phe Arg Ile Ser Asp His His His Val Gln
    35           40           45
gtt tct gaa tgc aga ccc acc acg agg gat gga ttc crs ccg ccc gcc      253
Val Ser Glu Cys Arg Pro Thr Thr Arg Asp Gly Phe Xaa Pro Pro Ala
    50           55           60
ctg ctg cag ata cat gcg gca cag cag gca cgt gcc tgg aga gaa cag      301
Leu Leu Gln Ile His Ala Ala Gln Gln Ala Arg Ala Trp Arg Glu Gln
    65           70           75
ctc ctg agc aca
Leu Leu Ser Thr
80

```

&lt;210&gt; 2586

&lt;211&gt; 357

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 126..356

&lt;400&gt; 2586

```

cgttcttagg gaaaaaagaa ggaacagggg caagctcctg gcggttggtt gtggcagaca      60
cttcaccagg ggctgactcg cgggggctga gtgtacaggc cccaggtggt ggttgatgag      120
agggtg atg agt gtg cca gcc acc ttg cag ggg tct ttc ctg gcg agc tgg      170
  Met Ser Val Pro Ala Thr Leu Gln Gly Ser Phe Leu Ala Ser Trp
    1           5           10           15
cag gag cag gga gga gca cgt tgc tcc tgc tgc tgg tgg ggc agt aac      218
Gln Glu Gln Gly Gly Ala Arg Cys Ser Cys Cys Trp Trp Gly Ser Asn
    20           25           30
gtg ttc aac ctg aca gcg acg ttt ttg ctg aaa ccg aag cca agg gtg      266
Val Phe Asn Leu Thr Ala Thr Phe Leu Leu Lys Pro Lys Pro Arg Val

```

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<220>  
<221> CDS  
<222> 161..334
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```
<220>  
<221> CDS  
<222> 51..245
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1660

ttg tct gag atg gag tct cgc tca gtt gcc car rct gca gtg cgg tgg	152
Leu Ser Glu Met Glu Ser Arg Ser Val Ala Gln Xaa Ala Val Arg Trp	
20 25 30	
cac aat ctc ggc tca ctg caa gct ctg cct ccc ggg ttc acg cca ttc	200
His Asn Leu Gly Ser Leu Gln Ala Leu Pro Pro Gly Phe Thr Pro Phe	
35 40 45 50	
tcc tgc ctc aac ctc ctg agt agc tgg gac tac aga cac ccg cca c	246
Ser Cys Leu Asn Leu Leu Ser Ser Trp Asp Tyr Arg His Pro Pro	
55 60 65	

&lt;210&gt; 2589

&lt;211&gt; 380

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 224..379

&lt;400&gt; 2589

ttgtstccct gggtttgtgc cctgcatccc ydtggaaatt tgtatgtcct cctttctcat	60
tctttgaggt tgcagattac attctttctc cctctgtagt gcccggtgtc aggccatgkd	120
kgcagcaagt gagcaattaa tgkaaccat gggtaagtat ggcccakya tctctctage	180
ctgagcctgg tcacaaagta ttgacagaag caacaaactc aag atg aga gct ctc	235
Met Arg Ala Leu	
1	
cag cag aaa gct ctt tgg agt drg gaa gac agg aag cnn atg tgc ata	283
Gln Gln Lys Ala Leu Trp Ser Xaa Glu Asp Arg Lys Xaa Met Cys Ile	
5 10 15 20	
gag gtk kgg atc tct gcc tcc tgt kca gag cag tgt gag cac aat gac	331
Glu Val Xaa Ile Ser Ala Ser Cys Xaa Glu Gln Cys Glu His Asn Asp	
25 30 35	
cta ttt ttg ttg gta aga caa gtc gac ttc tac ttg gkg cag cat aac t	380
Leu Phe Leu Leu Val Arg Gln Val Asp Phe Tyr Leu Xaa Gln His Asn	
40 45 50	

&lt;210&gt; 2590

&lt;211&gt; 289

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 108..287

&lt;400&gt; 2590

ctgaaggaga tggcccagtc tatcttcatg gcaggtatac tgattggagg gctcgtgctt	60
ggagacctgt ctgacagggtg agacatgggg gcacagccca tggaagc atg acc cat	116
Met Thr His	
1	
agg gac aac cct tcc cta ctc tgc tcc acc cgt gca ccc cca aag agg	164
Arg Asp Asn Pro Ser Leu Leu Cys Ser Thr Arg Ala Pro Pro Lys Arg	

5	10	15	
caa aga gct ggg gga ggg tgg gat ggc tct tgc tgt gtg gcc ttg ggc			212
Gln Arg Ala Gly Gly Trp Asp Gly Ser Cys Cys Val Ala Leu Gly			
20	25	30	35
aaa cct cac tac ctt tct gga cca cag cct tct ctc cac ccc aaa gcc			260
Lys Pro His Tyr Leu Ser Gly Pro Gln Pro Ser Leu His Pro Lys Ala			
40	45	50	
ctt aca act gga atc ttc cag cct tcc tt			289
Leu Thr Thr Gly Ile Phe Gln Pro Ser			
55	60		

<210> 2591  
 <211> 400  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 235..399

<400> 2591	
catgaggtaa gatctttggg aaaatctgaa tagcgtaaac cattagattc aaatctcaaa	60
tggtttcttt tcaagtctag ttgttttaga gtatagtgag aaataccttg acacaatttt	120
aagagtaaac tatatgggtc agcatatsst tgaacaaaaa gtagactttg taaaagtatt	180
catttaaatt ctaacactcg tggcacaaaa gaatggaaat tgtaaaccga tgta atg	237
	Met
	1
gaa att ggc tat ctt ttt gac ccc aca tgt gcc cct caa aaa tgt ttt	285
Glu Ile Gly Tyr Leu Phe Asp Pro Thr Cys Ala Pro Gln Lys Cys Phe	
5	10
5	15
tgg ttt ggg tca aca caa ggc aag ata cat tct tta aaa tac tcc cag	333
Trp Phe Gly Ser Thr Gln Gly Lys Ile His Ser Leu Lys Tyr Ser Gln	
20	25
20	30
atg tgt cca tac att cat cct tta ctc agt gca tat gtg agg gtt gtt	381
Met Cys Pro Tyr Ile His Pro Leu Leu Ser Ala Tyr Val Arg Val Val	
35	40
35	45
gct gga aga cag gag gtc t	400
Ala Gly Arg Gln Glu Val	
50	55

<210> 2592  
 <211> 299  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 105..299

<400> 2592	
aagagctacg cggcggcggc ggagcgaggc ctctgtgccgt kacggccatc acggcggccg	60
cartggcgks ctggagccct cctcagtgtg gaagctgctg aaag atg gca gaa gaa	116

Met Ala Glu Glu

1

gtg	gtg	gka	gta	gcc	aaa	ttt	gat	tat	gtg	gcc	caa	caa	gaa	caa	gag	164
Val	Val	Xaa	Val	Ala	Lys	Phe	Asp	Tyr	Val	Ala	Gln	Gln	Glu	Gln	Glu	
5					10					15					20	
tkg	gac	atc	aag	aag	aat	gag	aga	tta	tgg	ctt	ctg	gat	gat	tct	aag	212
Xaa	Asp	Ile	Lys	Lys	Asn	Glu	Arg	Leu	Trp	Leu	Leu	Asp	Asp	Ser	Lys	
			25					30						35		
tcc	tgg	tgg	cga	gtt	cga	aat	tcc	atg	aat	aaa	aca	ggt	ttt	gtg	cct	260
Ser	Trp	Trp	Arg	Val	Arg	Asn	Ser	Met	Asn	Lys	Thr	Gly	Phe	Val	Pro	
			40				45						50			
tct	aac	tat	gtg	gaa	agg	aaa	aac	agt	gcc	cgg	aaa	gca				299
Ser	Asn	Tyr	Val	Glu	Arg	Lys	Asn	Ser	Ala	Arg	Lys	Ala				
	55						60					65				

<210> 2593

<211> 354

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 124..354

<400> 2593

acttaagccd	hwgtacatgc	tgcttgccag	gcddaaacttc	ccactttcct	ccagatcttg	60
gtgtcaatgt	catttcctcc	aggaaggcct	ccagggtgtc	tagctcgata	acccctgtta	120
acc atg ccc atg gta gca tgc tcc att tac cag gtc cag aac atc cac						168
Met Pro Met Val Ala Cys Ser Ile Tyr Gln Val Gln Asn Ile His						
1	5		10		15	
gga gct ttc aat gct ctc ggg gga gca gac aga ctc acc tcc aac cct						216
Gly Ala Phe Asn Ala Leu Gly Gly Ala Asp Arg Leu Thr Ser Asn Pro						
	20		25		30	
aac cag tgg gaa ggt gga ccc agc ccc gtc cag acc cag acc ctg acg						264
Asn Gln Trp Glu Gly Gly Pro Ser Pro Val Gln Thr Gln Thr Leu Thr						
	35		40		45	
gag aag gaa gaa ggc ttg tcc cgg ggc aca gca gac gca cgc acg cag						312
Glu Lys Glu Glu Gly Leu Ser Arg Gly Thr Ala Asp Ala Arg Thr Gln						
	50		55		60	
tgg ata cca gct att acc att att gtt gct ctc atc aca gcc						354
Trp Ile Pro Ala Ile Thr Ile Ile Val Ala Leu Ile Thr Ala						
65		70		75		

<210> 2594

<211> 422

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 23..421

&lt;400&gt; 2594

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gccagggccg gcgctcctca ag atg gct gcc gas agt rag ccc gaa tcc gag      52
                        Met Ala Ala Xaa Ser Xaa Pro Glu Ser Glu
                        1          5          10
gta ttt gag atc acg gac ttc acc amt gcc tcg gaa tgg gaa agg ttt      100
Val Phe Glu Ile Thr Asp Phe Thr Xaa Ala Ser Glu Trp Glu Arg Phe
                        15          20          25
att tcc aaa gtt gaa gaa gtc ttg aat gac tgg aaa ctg att gga aac      148
Ile Ser Lys Val Glu Glu Val Leu Asn Asp Trp Lys Leu Ile Gly Asn
                        30          35          40
tct ttg gga aag cca ctc gaa aag ggk ata ttt act tct ggc aca tgg      196
Ser Leu Gly Lys Pro Leu Glu Lys Gly Ile Phe Thr Ser Gly Thr Trp
                        45          50          55
gaa gag aaa tcm sat gaa att tcc ttt gct gac ttc aag ttc tca gtc      244
Glu Glu Lys Ser Xaa Glu Ile Ser Phe Ala Asp Phe Lys Phe Ser Val
                        60          65          70
act cat cat tat ctt gta caa gag tcc act gat aaa gaa gga aag gat      292
Thr His His Tyr Leu Val Gln Glu Ser Thr Asp Lys Glu Gly Lys Asp
                        75          80          85
gag tta tta gag gat gtt gtk cca caa tct atg caa gat ttg ctg ggt      340
Glu Leu Leu Glu Asp Val Val Pro Gln Ser Met Gln Asp Leu Leu Gly
                        95          100          105
atg aat aat gac ttt cct cca aga gca cat tgc ctg gta aga tgg tat      388
Met Asn Asn Asp Phe Pro Pro Arg Ala His Cys Leu Val Arg Trp Tyr
                        110          115          120
ggg cka cgt gag tnc gtg gtg att gcc cct gct t
Gly Xaa Arg Glu Xaa Val Val Ile Ala Pro Ala      422
                        125          130

```

&lt;210&gt; 2595

&lt;211&gt; 377

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 49..375

&lt;400&gt; 2595

```

cagaaggagc taagtgtttt ggaagaggat attaagagag tggaagan atg agt ggc      57
                        Met Ser Gly
                        1
tta tac tct cct gtc agt gag gat agc aca gtg cct caa ttt gaa gct      105
Leu Tyr Ser Pro Val Ser Glu Asp Ser Thr Val Pro Gln Phe Glu Ala
                        5          10          15
cct tct cca tca cac agt agt att att gat tcc aca gaa tac agc caa      153
Pro Ser Pro Ser His Ser Ser Ile Ile Asp Ser Thr Glu Tyr Ser Gln
                        20          25          30          35
cct cca ggt ttc agt ggc agt tct cag aca aag aaa cag cct tgg tat      201
Pro Pro Gly Phe Ser Gly Ser Ser Gln Thr Lys Lys Gln Pro Trp Tyr
                        40          45          50
aat agc acg tta gca tca aga cga aaa cga ctt act gct cat ttt gaa      249
Asn Ser Thr Leu Ala Ser Arg Arg Lys Arg Leu Thr Ala His Phe Glu

```



	55		60		65	
gac ttg gag cag tgt tac ttt tct aca agg atg tct cgt atc tca gat						297
Asp Leu Glu Gln Cys Tyr Phe Ser Thr Arg Met Ser Arg Ile Ser Asp						
	70		75		80	
gac agt cga act gca aac cag ttg gat gaa ttt cag gaa tgc ttg tcc						345
Asp Ser Arg Thr Ala Asn Gln Leu Asp Glu Phe Gln Glu Cys Leu Ser						
	85		90		95	
aag ttt act cga tat aat tca gta cga cct ct						377
Lys Phe Thr Arg Tyr Asn Ser Val Arg Pro						
100		105				

&lt;210&gt; 2596

&lt;211&gt; 355

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 138..353

&lt;400&gt; 2596

aagacaatac atattagata ttttttaaac ctggctttta tgtgggcctg ccacctgact		60
aatttagcct gttcttgact tcttttgga aatgaattca tgatctactg gaagagaccc		120
aaagaaaaga tgaagaa atg gga tct ctg cag gac cgt gta att gca tta		170
Met Gly Ser Leu Gln Asp Arg Val Ile Ala Leu		
1	5	10
gaa acg agt acc caa gtg gcc ttg gac cat ctg gag tct gtg cct gag		218
Glu Thr Ser Thr Gln Val Ala Leu Asp His Leu Glu Ser Val Pro Glu		
	15	20
aaa ctg agc cta cta gaa gat ttc aaa gac ttc aga gat tcc tgc agt		25
Lys Leu Ser Leu Leu Glu Asp Phe Lys Asp Phe Arg Asp Ser Cys Ser		266
	30	35
tca tct gag aga act gat gga aga tat tcc aaa tac agg gtt cgc aga		40
Ser Ser Glu Arg Thr Asp Gly Arg Tyr Ser Lys Tyr Arg Val Arg Arg		314
	45	50
aat tct ctt cag cat cac caa gat gac acc aag tac aga tc		55
Asn Ser Leu Gln His His Gln Asp Asp Thr Lys Tyr Arg		355
60	65	70

&lt;210&gt; 2597

&lt;211&gt; 229

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 63..227

&lt;400&gt; 2597

cttcctcttg ctgccagtgg tagcgcctcgt ctggcggagt gggtgttggt cttgacgata		60
tt atg gat gaa gga gtt gtt aaa gaa agt ggc aat gat acc att gat		107
Met Asp Glu Gly Val Val Lys Glu Ser Gly Asn Asp Thr Ile Asp		

1	5	10	15	
gaa gaa gaa ctg att tta cct aac agg aac tta agg gac aag gta gaa				155
Glu Glu Glu Leu Ile Leu Pro Asn Arg Asn Leu Arg Asp Lys Val Glu				
20	25	30		
gaa aat tca gtg aga tct cca aga aaa tca cct cgt tta atg gca caa				203
Glu Asn Ser Val Arg Ser Pro Arg Lys Ser Pro Arg Leu Met Ala Gln				
35	40	45		
gaa caa gta aga agt ttg cga cag gc				229
Glu Gln Val Arg Ser Leu Arg Gln				
50	55			

<210> 2598  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 127..393

<400> 2598	
atttgggtccc aagtatgact caggggttagg ctgggtcctc aggctccgtg ctgttgggaag	60
gaagtgggag gattccaggg gagttctggg accttttcaa actgaagaga ggaggctggc	120
tgcatac atg gga gaa gag act att ggg aag aag tta cct gca act aca	168
Met Gly Glu Glu Thr Ile Gly Lys Lys Leu Pro Ala Thr Thr	
1	5
gca act cca gac tca tca aaa aca gaa atg gac agc agg aca aag agc	216
Ala Thr Pro Asp Ser Ser Lys Thr Glu Met Asp Ser Arg Thr Lys Ser	
15	20
aag gat tac tgc aaa gta ata ttt cca tat gag gca cag aat gat gat	264
Lys Asp Tyr Cys Lys Val Ile Phe Pro Tyr Glu Ala Gln Asn Asp Asp	
35	40
gaa ttg aca atc aaa gaa gga gat ata gtc act ctc atc aat aag gac	312
Glu Leu Thr Ile Lys Glu Gly Asp Ile Val Thr Leu Ile Asn Lys Asp	
50	55
tgc atc gac gta ggc tgg tgg gaa gga gag ctg aac ggc aga cga ggc	360
Cys Ile Asp Val Gly Trp Trp Glu Gly Glu Leu Asn Gly Arg Arg Gly	
65	70
gtg ttc ccc gat aac ttc gtg aag tta ctt cca	393
Val Phe Pro Asp Asn Phe Val Lys Leu Leu Pro	
80	85

<210> 2599  
 <211> 236  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 13..234

<400> 2599

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      Met Arg Lys Asn Glu Phe Gly Leu Arg Arg Leu Ile Pro
      1          5          10
tac tgg aag aca ggc ata gta gac atc tat cgg gct gga ctg aga act 99
Tyr Trp Lys Thr Gly Ile Val Asp Ile Tyr Arg Ala Gly Leu Arg Thr
      15          20          25
cgg tgg gaa cta gag gat gtc agg gag ggg gac cca gat ttt agt aaa 147
Arg Trp Glu Leu Glu Asp Val Arg Glu Gly Asp Pro Asp Phe Ser Lys
      30          35          40          45
gaa ggt tct aaa tgg ctt cta aga agt tgg gtg cag att ttc atg gga 195
Glu Gly Ser Lys Trp Leu Leu Arg Ser Trp Val Gln Ile Phe Met Gly
      50          55          60
ctt tca gtt acc ttg atg atg tcc cat tta aga cag gaa tg 236
Leu Ser Val Thr Leu Met Met Ser His Leu Arg Gln Glu
      65          70

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<220>  
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atagttg atg cat gga tgg aag ggt act tgg atg gtg gct gca tgg ata 169
      Met His Gly Trp Lys Gly Thr Trp Met Val Ala Ala Trp Ile
      1          5          10
gat gat tac tat gtt tct cct aat agc atg tct gta cat ttc cca aag 217
Asp Asp Tyr Tyr Val Ser Pro Asn Ser Met Ser Val His Phe Pro Lys
      15          20          25          30
cct cac cag ggt gtg aaa tct cat gcc ccg gga gaa tgc ttc caa ctg 265
Pro His Gln Gly Val Lys Ser His Ala Pro Gly Glu Cys Phe Gln Leu
      35          40          45
aaa aac tca gtt atc caa cac cac atc tct ttc tgc cca gca cc 309
Lys Asn Ser Val Ile Gln His His Ile Ser Phe Cys Pro Ala
      50          55          60

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<210> 2601  
 <211> 297  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 76..297

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<400> 2601
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tatcgccagg ctgga atg caa tgg cgc gat ctc tcc tca ctg caa cct ccg 111  
 Met Gln Trp Arg Asp Leu Ser Ser Leu Gln Pro Pro  
 1 5 10  
 cct ccc ggg ttc aag cga ttc tcc tgc ctc agc acc tcg agt agc tgg 159  
 Pro Pro Gly Phe Lys Arg Phe Ser Cys Leu Ser Thr Ser Ser Trp  
 15 20 25  
 gac tac agg cgc gcg cca cca cgc cca gat gag aaa act gag gca cag 207  
 Asp Tyr Arg Arg Ala Pro Pro Arg Pro Asp Glu Lys Thr Glu Ala Gln  
 30 35 40  
 aga ggt gaa ata agg ccc cca gaa tgc tct tct cca aga ctt aga aaa 255  
 Arg Gly Glu Ile Arg Pro Pro Glu Cys Ser Ser Pro Arg Leu Arg Lys  
 45 50 55 60  
 atc aaa tgc tat cca tcc ctc aag ata cat ccc tcc agc gcc 297  
 Ile Lys Cys Tyr Pro Ser Leu Lys Ile His Pro Ser Ser Ala  
 65 70

<210> 2602

<211> 170

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 5..169

<400> 2602

agaa atg ttg tgt ttc gtc tct gct aaa aac waa aca agg tac cat ctc 49  
 Met Leu Cys Phe Val Ser Ala Lys Asn Xaa Thr Arg Tyr His Leu  
 1 5 10 15  
 atg gcc tct tgg ttc aaa tcc gtt ttc ttg ctc cgc agg gag aga ctg 97  
 Met Ala Ser Trp Phe Lys Ser Val Phe Leu Leu Arg Arg Glu Arg Leu  
 20 25 30  
 ccc ctg gag tat tct gct ttt aat aag ctt ccc aat cag ctc tcg agt 145  
 Pro Leu Glu Tyr Ser Ala Phe Asn Lys Leu Pro Asn Gln Leu Ser Ser  
 35 40 45  
 gca aag cgc tct ccc tcc ctc gcc c 170  
 Ala Lys Arg Ser Pro Ser Leu Ala  
 50 55

<210> 2603

<211> 251

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 65..250

<400> 2603

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 agaa atg gaa ttg aaa agt cca gag gaa gag gtt gtg gca gca ctg cct 109  
 Met Glu Leu Lys Ser Pro Glu Glu Glu Val Val Ala Ala Leu Pro

004220" 666ET560

1	5	10	15	
gaa ggt atg aga cca gat tct aat ctt tat ggt ttt cca tgg gaa ttg				157
Glu Gly Met Arg Pro Asp Ser Asn Leu Tyr Gly Phe Pro Trp Glu Leu				
20	25	30		
gtg ata tgt gca gct gtt gtt gga ttt ttt gct gtt ctc ttt ttt ttg				205
Val Ile Cys Ala Ala Val Val Gly Phe Ala Val Leu Phe Phe Leu				
35	40	45		
tgg aga agt ttt rga tgc gtt agg agt cgg ctt tat gtg gga cga g				251
Trp Arg Ser Phe Xaa Ser Val Arg Ser Arg Leu Tyr Val Gly Arg				
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 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 126..440

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cgcccacagt ttctctgttc tcaacggctc agttttaaca ggataaaattt taagttaagt	120			
cccat atg aag gct caa aag agc ggt aaa gaa caa cag ctt gac att atg	170			
Met Lys Ala Gln Lys Ser Gly Lys Glu Gln Gln Leu Asp Ile Met				
1	5	10	15	
aac aag cag tac caa caa ctt gaa agt cgt ttg gat gag ata ctt tct				218
Asn Lys Gln Tyr Gln Gln Leu Glu Ser Arg Leu Asp Glu Ile Leu Ser				
20	25	30		
aga att gct aag gaa acg gaa gag att aag gac ctt gaa gaa cag ctt				266
Arg Ile Ala Lys Glu Thr Glu Glu Ile Lys Asp Leu Glu Glu Gln Leu				
35	40	45		
act gaa ggc cag ata gca gca aat gaa gcc ctg aag aag gat tta gaa				314
Thr Glu Gly Gln Ile Ala Ala Asn Glu Ala Leu Lys Lys Asp Leu Glu				
50	55	60		
ggt gtt atc agt ggg ttg caa gaa tac ctg ggg acc att aaa ggc cag				362
Gly Val Ile Ser Gly Leu Gln Glu Tyr Leu Gly Thr Ile Lys Gly Gln				
65	70	75		
gca act cag gcc cag aat gag tgc agg aag ctg cgg gat gag aaa gag				410
Ala Thr Gln Ala Gln Asn Glu Cys Arg Lys Leu Arg Asp Glu Lys Glu				
80	85	90	95	
aca ttg ttg cag aga ttg aca gaa gtc gag ca				442
Thr Leu Leu Gln Arg Leu Thr Glu Val Glu				
100	105			

<210> 2605  
 <211> 228  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 40..228

[illegible]

<210> 2606

<211> 432

<212> DNA

<213> Homo sapiens

**<220>**

<221> CDS

<222> 192..431

<400> 2606

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ttgaaagctt	tgtgtgactc	cctttgctgt	gccaggact	ttgtgtggat	cgacttttg		120
cctcaatctc	tggatgcgtg	gcctgtccag	tccaggagca	ggaggcctgt	ggacgcctcc		180
caataggaca	a atg tgt cca tgc tca	cgg acc ttt tct tcc agg ggt cat					230
	Met Cys Pro Cys Ser Arg Thr Phe Ser Ser Arg Gly His						
	1	5		10			
ttc ctc tca aac cta cag cca aca agg cca cca gtc cgc tca acc cag							278
Phe Leu Ser Asn Leu Gln Pro Thr Arg Pro Pro Val Arg Ser Thr Gln							
	15	20		25			
ggc cac ttc cst aat gac cag cca cca gca gaa gca gat ggc ctc agg							326
Gly His Phe Xaa Asn Asp Gln Pro Pro Ala Glu Ala Asp Gly Leu Arg							
	30	35		40			45
cag atg gcc gga gtc acc cac tct cta ggg cgt saa ctc ccc tgg ctg							
Gln Met Ala Gly Val Thr His Ser Leu Gly Arg Xaa Leu Pro Trp Leu							374
	50		55				60
ccc cgc tca gac cag gca tcg ctc acc tgc gac cag cag aag aga ctg							422
Pro Arg Ser Asp Gln Ala Ser Leu Thr Cys Asp Gln Gln Lys Arg Leu							
	65		70				75
att tca tca a							
Ile Ser Ser							432
	80						

<210> 2607

<211> 321

<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 76..321

<400> 2607  
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agacggaatc tcgcc atg ttg ccc aag ctg gtc tgc aac ttg gga gct act 111  
Met Leu Pro Lys Leu Val Ser Asn Leu Gly Ala Thr  
1 5 10  
ggc gtg gac agt gca ggc ctg ggg gaa agg ttg tca ccc tca ctg tgt 159  
Gly Val Asp Ser Ala Gly Leu Gly Glu Arg Leu Ser Pro Ser Leu Cys  
15 20 25  
gtc act ggg gct ttt aca aaa cac tgc ttg gtg ggc tct tcc ctc cct 207  
Val Thr Gly Ala Phe Thr Lys His Cys Leu Val Gly Ser Ser Leu Pro  
30 35 40  
cca cag gtt ccg ttt agg ggg ccc agc cac aag acc cca ggc tct aga 255  
Pro Gln Val Pro Phe Arg Gly Pro Ser His Lys Thr Pro Gly Ser Arg  
45 50 55 60  
atc tct gcc ctt gag cat cag gct aaa gag ttt aga ttt gtc ttt ttt 303  
Ile Ser Ala Leu Glu His Gln Ala Lys Glu Phe Arg Phe Val Phe Phe  
65 70 75  
tgt tgt tct ttt ctt ttt 321  
Cys Cys Ser Phe Leu Phe  
80

<210> 2608  
<211> 251  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 3..251

<400> 2608  
tg atg acc gtg gac agc agc atg agc agt ggg tac tgc agc cwg gac 47  
Met Thr Val Asp Ser Ser Met Ser Ser Gly Tyr Cys Ser Xaa Asp  
1 5 10 15  
gag gaa ctg gaa gac tgc ttc ttc act gct aag act acc ttt ttc aga 95  
Glu Glu Leu Glu Asp Cys Phe Phe Thr Ala Lys Thr Thr Phe Phe Arg  
20 25 30  
aat gcg cag agc aaa cat ctt tca aag aat gtc tgt aaa cct gtg gag 143  
Asn Ala Gln Ser Lys His Leu Ser Lys Asn Val Cys Lys Pro Val Glu  
35 40 45  
gag aca cag cgc ccg ccc aca ctg cag gag atc aag cag aag atc gac 191  
Glu Thr Gln Arg Pro Pro Thr Leu Gln Glu Ile Lys Gln Lys Ile Asp  
50 55 60  
agc tac aac acg cga gas aag aac tgc ctg ggc atg aaa ctg agt gaa 239  
Ser Tyr Asn Thr Arg Xaa Lys Asn Cys Leu Gly Met Lys Leu Ser Glu

65  
gac ggc acc atc  
Asp Gly Thr Ile  
80

70

75

251

<210> 2609  
<211> 272  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 31..270

<400> 2609  
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Met Phe Leu Lys Glu Glu Val Leu  
1 5  
ctg aat ttt gta tct cag agt atg atg cag aat agg cac tta gta gac 102  
Leu Asn Phe Val Ser Gln Ser Met Met Gln Asn Arg His Leu Val Asp  
10 15 20  
att gaa ttt tat aat ttt kkk waa tta tac ttt aag ttc tgg tat aca 150  
Ile Glu Phe Tyr Asn Phe Xaa Xaa Leu Tyr Phe Lys Phe Trp Tyr Thr  
25 30 35 40  
tgt gca gaa cgt gca ggt ttg tta cat agg tat acg tgt gcc ata gtg 198  
Cys Ala Glu Arg Ala Gly Leu Leu His Arg Tyr Thr Cys Ala Ile Val  
45 50 55  
gtt tgc tgc acc ccg tca aac cgt ctt cta cat tgg gta ttt ctc tta 246  
Val Cys Cys Thr Pro Ser Asn Arg Leu Leu His Trp Val Phe Leu Leu  
60 65 70  
atg cta tcc ctc ccc twr ccc ccc gt 272  
Met Leu Ser Leu Pro Xaa Pro Pro  
75 80

<210> 2610  
<211> 330  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 169..330

<400> 2610  
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tggtttcttat atccccaaag gatataagaa aaatttaaaa aatttttatg gtatctaaga 120  
caatgctgtg ctctwwtgag cactacatat gtgttaaaaag atcaaact atg tta agt 177  
Met Leu Ser  
1  
aac ttt gct atc aaa ggg aga ctg cat tct ttt ttt ttc ttt tcc gag 225  
Asn Phe Ala Ile Lys Gly Arg Leu His Ser Phe Phe Phe Ser Glu  
5 10 15



aca gag tct cgt tct gtg acc ttg gct gaa gag caa tgg cac aat ctt 273  
 Thr Glu Ser Arg Ser Val Thr Leu Ala Glu Glu Gln Trp His Asn Leu  
 20 25 30 35  
 ggc tca ctg cga ctt ctg cct tcc agg ttc aag aga ttc tcc tgc ctc 321  
 Gly Ser Leu Arg Leu Leu Pro Ser Arg Phe Lys Arg Phe Ser Cys Leu  
 40 45 50  
 agc ctc ctc  
 Ser Leu Leu 330

<210> 2611  
 <211> 267  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 56..265

<400> 2611  
 acgcaaatca ataaatgtaa tccagcatat aaacagaacc aragtcaaaa accac atg 58  
 Met  
 1  
 att atc tca ata gat gca gaa aaa acc ttt gac aaa att caa caa ccc 106  
 Ile Ile Ser Ile Asp Ala Glu Lys Thr Phe Asp Lys Ile Gln Gln Pro  
 5 10 15  
 ttc atg cta aaa act ctc aat aaa tta ggt att gat ggg acg tat ttc 154  
 Phe Met Leu Lys Thr Leu Asn Lys Leu Gly Ile Asp Gly Thr Tyr Phe  
 20 25 30  
 aaa ata aga gct atc tat gac aaa ccc aca gcc aat atc ata ctg 202  
 Lys Ile Ile Arg Ala Ile Tyr Asp Lys Pro Thr Ala Asn Ile Ile Leu  
 35 40 45  
 aat gtg caa aaa ctg gaa gca ttc cct ttg aaa act ggc aca aga cag 250  
 Asn Val Gln Lys Leu Glu Ala Phe Pro Leu Lys Thr Gly Thr Arg Gln  
 50 55 60 65  
 gga tgc cct ctc tca ca  
 Gly Cys Pro Leu Ser 267  
 70

<210> 2612  
 <211> 483  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 95..481

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 gctgtccagg cacgcgaggc ccctcagcaa caaa atg ctt caa caa gtt cca gaa 115  
 Met Leu Gln Gln Val Pro Glu  
 1 5

aac ata aat ttt cct gct gaa gaa gag aaa atc ttg gag ttt tgg act	163
Asn Ile Asn Phe Pro Ala Glu Glu Glu Lys Ile Leu Glu Phe Trp Thr	
10 15 20	
gaa ttt aat tgt ttt cag gaa tgc tta aag caa tca aaa cat aaa cca	211
Glu Phe Asn Cys Phe Gln Glu Cys Leu Lys Gln Ser Lys His Lys Pro	
25 30 35	
aaa ttt acc ttc tat gat ggt cct cct ttt gca act gga ctg cct cac	259
Lys Phe Thr Phe Tyr Asp Gly Pro Pro Phe Ala Thr Gly Leu Pro His	
40 45 50 55	
tat gga cat ata ctt gcg ggt aca att aaa gat ata gtt aca aga tat	307
Tyr Gly His Ile Leu Ala Gly Thr Ile Lys Asp Ile Val Thr Arg Tyr	
60 65 70	
gcg sac cag agt ggg ttt cat gtt gac aga aga ttt gga tgg gat tgc	355
Ala Xaa Gln Ser Gly Phe His Val Asp Arg Arg Phe Gly Trp Asp Cys	
75 80 85	
cat ggc tta cct gtg gaa tat gaa att gat aag aca ctg gga atc aga	403
His Gly Leu Pro Val Glu Tyr Glu Ile Asp Lys Thr Leu Gly Ile Arg	
90 95 100	
gga cca gag gat gtg gcc aaa atg ggg att aca gag tat aac aat cag	451
Gly Pro Glu Asp Val Ala Lys Met Gly Ile Thr Glu Tyr Asn Asn Gln	
105 110 115	
tgc cga gca att gtg atg aga tat tct gct ga	483
Cys Arg Ala Ile Val Met Arg Tyr Ser Ala	
120 125	
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<213> Homo sapiens	
<220>	
<221> CDS	
<222> 136..384	
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agctgggctt gtcccagagg gagaggggtt ttcttctcca acggggagcg gtggaggcag	120
ctgaggaagt ttacc atg ctt gct ctg cgg gac ctg ggc atg ggg aag cga	171
Met Leu Ala Leu Arg Asp Leu Gly Met Gly Lys Arg	
1 5 10	
gaa ggc gag gag ctg atc cag gcg gag gcc cgg tgt ctg gtg gag aca	219
Glu Gly Glu Glu Leu Ile Gln Ala Glu Ala Arg Cys Leu Val Glu Thr	
15 20 25	
ttc cag ggg aca gaa gga cgc cca ttc gat ccc tcc ctg ctg ctg gcc	267
Phe Gln Gly Thr Glu Gly Arg Pro Phe Asp Pro Ser Leu Leu Leu Ala	
30 35 40	
cag gcc acc tcc aac gta gtc tgc tcc ctc ctc ttt ggc ctc cgc ttc	315
Gln Ala Thr Ser Asn Val Val Cys Ser Leu Leu Phe Gly Leu Arg Phe	
45 50 55 60	
tcc tat gag gat aag gag ttc cag gcc gtg gtc cgg gca gct ggt ggt	363
Ser Tyr Glu Asp Lys Glu Phe Gln Ala Val Val Arg Ala Ala Gly Gly	
65 70 75	
acc tgc tgg gag tca gct ccc a	385

Thr Cys Trp Glu Ser Ala Pro  
80

<210> 2614  
<211> 191  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 8..190

<400> 2614  
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Met Phe Val Cys Leu Ser Gly Ala Gln Gln Pro Gly Pro Pro  
1 5 10  
tat tac acc gac cca gga gga ccg ggg atg aac cct gtc ggg aat tcc 97  
Tyr Tyr Thr Asp Pro Gly Gly Pro Gly Met Asn Pro Val Gly Asn Ser  
15 20 25 30  
atg gca ttg gct ttc cag gtc cca ccc aac tca ccc cag ggg agt gtg 145  
Met Ala Leu Ala Phe Gln Val Pro Pro Asn Ser Pro Gln Gly Ser Val  
35 40 45  
gcc tgc ccg ccc cct cca gcc tac tgc aac acg cct ccg ccc ccg a 191  
Ala Cys Pro Pro Pro Pro Ala Tyr Cys Asn Thr Pro Pro Pro Pro  
50 55 60

<210> 2615  
<211> 413  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 236..412

<400> 2615  
agaagtatgg gactaggtga aaagaccaaa tttatgttdg attggtgtac ctgaaagtga 60  
tggggacaaa ggaaccaagt tagaaaacac tcttsaggat attatccagg agaatttccc 120  
cagcctagca aggcaggcca acattcaaat tcaggaaata cagagaacat cacaaagata 180  
ttcctcgaga agagcaaccc caagacatat aatcatcata ttcaccawgg ttgar atg 238  
Met  
1  
aag grr awa ata tta agg gca gcc aga gag aaa ggt cgg gtt acc cac 286  
Lys Xaa Xaa Ile Leu Arg Ala Ala Arg Glu Lys Gly Arg Val Thr His  
5 10 15  
aaa agg aag cac atc aga ata aca ggg gat ctc ttg gca gar atc cta 334  
Lys Arg Lys His Ile Arg Ile Thr Gly Asp Leu Leu Ala Glu Ile Leu  
20 25 30  
caa gcc aga aga gag tgg ggg cca ata ttc aag att ctt aaa gaa aag 382  
Gln Ala Arg Arg Glu Trp Gly Pro Ile Phe Lys Ile Leu Lys Glu Lys  
35 40 45  
art ttt car ccc aga att tta tat cca gcc a 413

Xaa Phe Gln Pro Arg Ile Leu Tyr Pro Ala  
50 55

<210> 2616  
<211> 468  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 258..467

<400> 2616  
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ttaaaaaatgc ctactcatac aaaagtgtccc tggggacatg agtkaccatg gctaatacca 120  
agtttggttg cataaaaaact acaaaacat gaccaaccta gcagacacct catagataag 180  
tcacagttaa agagatacag cctaggaaac caaaatgtat tttcaaaata attttgcttg 240  
cgtttatcaa aactga atg gag aca tgg ttc ata aaa ttc cct ttc cct 290  
Met Glu Thr Trp Phe Ile Lys Phe Pro Phe Pro  
1 5 10  
ccc cat cca ctt tcc ttt cat ggg cag ttc aca gag ttc ctc tct aat 338  
Pro His Pro Leu Ser Phe His Gly Gln Phe Thr Glu Phe Leu Ser Asn  
15 20 25  
cca aac ctt tca aaa aac tct ttt ccc acc tct gcc aca aga atc tta 386  
Pro Asn Leu Ser Lys Asn Ser Phe Pro Thr Ser Ala Thr Arg Ile Leu  
30 35 40  
ttt ccc cca tca ctt tat ggw ggc ctt gat gat tca ttt acc cag tct 434  
Phe Pro Pro Ser Leu Tyr Gly Gly Leu Asp Asp Ser Phe Thr Gln Ser  
45 50 55  
cta ttt ttc agt cct aac atc ttg ata tca tgc t 468  
Leu Phe Phe Ser Pro Asn Ile Leu Ile Ser Ser  
60 65 70

<210> 2617  
<211> 366  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 205..366

<400> 2617  
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acagtcccc actgaaataa gaacgagttt ttatgctgct acacagcatt tcacattttc 120  
atatgcatta taataaaatg ataacagtaa aacttagtat aaaatctagt cagtgtggat 180  
ccctgtgctc aatgctttac acga atg ttc cag gtc aac cct caa aat aac 231  
Met Phe Gln Val Asn Pro Gln Asn Asn  
1 5  
tct ctc aca gag tat cat ccc cat ctc acg gac aag gac tct ggg gct 279  
Ser Leu Thr Glu Tyr His Pro His Leu Thr Asp Lys Asp Ser Gly Ala  
10 15 20 25

cag ggg aca ggc agt gtc agc atg cac aca cag gtt gac cga tgc cca 327  
 Gln Gly Thr Gly Ser Val Ser Met His Thr Gln Val Asp Arg Cys Pro  
 30 35 40  
 gtg tct ttc tac agt gtc cag ctg tct ccc cca cac ccc 366  
 Val Ser Phe Tyr Ser Val Gln Leu Ser Pro Pro His Pro  
 45 50

<210> 2618  
 <211> 158  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 5..157

<400> 2618  
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 Met Asp Ala Glu His Arg Glu Val Leu Pro Glu Ser Leu Pro Val  
 1 5 10 15  
 ttg cac aat caa aga gaa ttt agc atg gct gat ttt ctc tta gaa acc 97  
 Leu His Asn Gln Arg Glu Phe Ser Met Ala Asp Phe Leu Leu Glu Thr  
 20 25 30  
 act gta tca gat ttt ggc cag tct cat tkg act raa gag aaa gtt att 145  
 Thr Val Ser Asp Phe Gly Gln Ser His Xaa Thr Xaa Glu Lys Val Ile  
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 Ser Asp Cys Glu  
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<220>  
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 accttacctc tgctggcacc tttttggaca gggttctcta cttggcgagg tgacccaaat 180  
 cttcattcct gcagggtctg agtcctmrge cgctgcgatc gtttgaacat tgtttgtccc 240  
 cacmraaact catcttgagg cttggtcccc actgta atg atg ttg aga ggt ggc 294  
 Met Met Leu Arg Gly Gly  
 1 5  
 ggg aca ttt aag grg tgt ttg agt cat gag gga tcc agc ttc acg aag 342  
 Gly Thr Phe Lys Xaa Cys Leu Ser His Glu Gly Ser Ser Phe Thr Lys  
 10 15 20  
 gga tta gcg cag gag tgc gtg agt rct tct tgt ggg act cga ttg att 390  
 Gly Leu Ala Gln Glu Cys Val Ser Xaa Ser Cys Gly Thr Arg Leu Ile

25	30	35	
act gca gtw gcc agt kgt tac	aaa gca agg ctg	cct ctg gcc gcg tgc	438
Thr Ala Val Ala Ser Xaa Tyr	Lys Ala Arg Leu	Pro Leu Ala Ala Cys	
40	45	50	
ccd ctt ctg ctt cct att ttc	tcc cat gct aga	agc agc ac	479
Pro Leu Leu Leu Pro Ile	Phe Ser His Ala Arg	Ser Ser	
55	60	65	

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 <212> DNA  
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<220>  
 <221> CDS  
 <222> 64..363

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gag atg gat cgg tac ctg ctg ctg gtg atc tgg ggg gaa gga aaa ttc	108
Met Asp Arg Tyr Leu Leu Leu Val Ile Trp Gly Glu Gly Lys Phe	
1 5 10 15	
ccg tcg gcg gcc agt agg gag gca gaa cat ggg cca gag gtg tcg tcg	156
Pro Ser Ala Ala Ser Arg Glu Ala Glu His Gly Pro Glu Val Ser Ser	
20 25 30	
ggt gag ggt act gag aat cag ccg gac ttc aca gca gca aat gtt tat	204
Gly Glu Gly Thr Glu Asn Gln Pro Asp Phe Thr Ala Ala Asn Val Tyr	
35 40 45	
cac ctc ttg aaa aga agc att agt gct tca att aat cca gaa gat agt	252
His Leu Leu Lys Arg Ser Ile Ser Ala Ser Ile Asn Pro Glu Asp Ser	
50 55 60	
act ttc cct gcc tgt tca gtg gga ggt ata cct ggt tcc aag aag tgg	300
Thr Phe Pro Ala Cys Ser Val Gly Gly Ile Pro Gly Ser Lys Lys Trp	
65 70 75	
ttc ttt gca gtg cag gca ata tat gga ttt tat cag ttt tgt agt tct	348
Phe Phe Ala Val Gln Ala Ile Tyr Gly Phe Tyr Gln Phe Cys Ser Ser	
80 85 90 95	
gat tgg caa gag aca at	
Asp Trp Gln Glu Thr	365
100	

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 <222> 76..291

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 Met Asn Tyr Val Gly Gln Leu Ala Gly Gln Val Ile  
 1 5 10  
 gtc act gtg aag gaa ctc tac aag ggc att aac cag gcc acc ctc tct 159  
 Val Thr Val Lys Glu Leu Tyr Lys Gly Ile Asn Gln Ala Thr Leu Ser  
 15 20 25  
 ggg tgc att gat gtc atc gtg gta cag cag cag gat ggc agc tat cag 207  
 Gly Cys Ile Asp Val Ile Val Val Gln Gln Gln Asp Gly Ser Tyr Gln  
 30 35 40  
 tgt tca cct ttt cac gtt cgg ttt gga aag ctg gga gtc ctg aga tcc 255  
 Cys Ser Pro Phe His Val Arg Phe Gly Lys Leu Gly Val Leu Arg Ser  
 45 50 55 60  
 aaa gag aaa gtg att gat ata gaa atc aac ggc agc t 292  
 Lys Glu Lys Val Ile Asp Ile Glu Ile Asn Gly Ser  
 65 70

<210> 2622  
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 <212> DNA  
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 <221> CDS  
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 Met Ser Ala Thr Arg Ala Lys Lys Val Lys Met Ala  
 1 5 10  
 acc aaa tca tgc ccc gag tgc gac caa cag gtt cct gtt gca tgt aaa 97  
 Thr Lys Ser Cys Pro Glu Cys Asp Gln Gln Val Pro Val Ala Cys Lys  
 15 20 25  
 tca tgt cct tgt ggt tac ata ttt att agc aga aaa ctt tta aat gca 145  
 Ser Cys Pro Cys Gly Tyr Ile Phe Ile Ser Arg Lys Leu Leu Asn Ala  
 30 35 40  
 aaa cac tca gag aaa tca cca cct tct aca gaa aac aag cat gag tgc c 194  
 Lys His Ser Glu Lys Ser Pro Pro Ser Thr Glu Asn Lys His Glu Cys  
 45 50 55 60

<210> 2623  
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 <212> DNA  
 <213> Homo sapiens

<220>  
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 <222> 13..174

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 Met Pro Asp Leu Pro Leu Leu Ser Gln Ala Phe Ser Ala  
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tgg gaa cct gac cca gag ccg caa ccc tgg gtt aca gac agg agg atc	99
Trp Glu Pro Asp Pro Glu Pro Gln Pro Trp Val Thr Asp Arg Arg Ile	
15 20 25	
caa gtc aac gtg cct cag gca ctg ctg agt gac agg tca cac tcc ctc	147
Gln Val Asn Val Pro Gln Ala Leu Leu Ser Asp Arg Ser His Ser Leu	
30 35 40 45	
ctc tcc cct ggg ggg tcc ttg gcc cac cc	176
Leu Ser Pro Gly Gly Ser Leu Ala His	
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<210> 2624  
 <211> 181  
 <212> DNA  
 <213> Homo sapiens

<220>  
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 <222> 1..180

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Met Arg Ser Pro Pro Cys Gly Leu Leu Arg Trp Phe Gly Xaa Pro Leu	
1 5 10 15	
ctc gcg agt tgg tgc cgc tgc cac ctc cga ttc cga gct ttc ggc acc	96
Leu Ala Ser Trp Cys Arg Cys His Leu Arg Phe Arg Ala Phe Gly Thr	
20 25 30	
tct gcc ggg tgg tac cga gcc ttc ccg gcg ccc cct cct ctc ctc cca	144
Ser Ala Gly Trp Tyr Arg Ala Phe Pro Ala Pro Pro Pro Leu Leu Pro	
35 40 45	
ccg gcc tgc cct tcc ccg cgg gac tat cgc ccc cac a	181
Pro Ala Cys Pro Ser Pro Arg Asp Tyr Arg Pro His	
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<210> 2625  
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 <212> DNA  
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<220>  
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Met Ser Met Tyr Gln Ser Tyr Gly Ser Pro Ser Gln Tyr Gly Met Ala	
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ggc tcc tat ggc tca gcc asa ccc cag cag cca tcc gca ccc caa cac	96
Gly Ser Tyr Gly Ser Ala Xaa Pro Gln Gln Pro Ser Ala Pro Gln His	
20 25 30	
caa ggg act ctg aac crn kcc cca gtc ccc ggc atg gat gag agc atg	144
Gln Gly Thr Leu Asn Xaa Xaa Pro Val Pro Gly Met Asp Glu Ser Met	
35 40 45	



tsc tac cag gst ccc cct cag cag ctg ccg tcg gct cag csc cct cag	192
Xaa Tyr Gln Xaa Pro Pro Gln Gln Leu Pro Ser Ala Gln Xaa Pro Gln	
50 55 60	
ccc tca aat ccc cca cat ggg gct cac acg ctg aac agt ggc cct sag	240
Pro Ser Asn Pro Pro His Gly Ala His Thr Leu Asn Ser Gly Pro Xaa	
65 70 75 80	
cct ggg aca gct cca gcn aca cag cac agc	270
Pro Gly Thr Ala Pro Ala Thr Gln His Ser	
85 90	

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 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 63..275

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ga atg tgt aat gat cag gtc agg gta tct gag gag tct atg act ttg	107
Met Cys Asn Asp Gln Val Arg Val Ser Glu Glu Ser Met Thr Leu	
1 5 10 15	
agt att tgt cat tct gtg ttg gga acc atc agt cta ttt tgt aat atg	155
Ser Ile Cys His Ser Val Leu Gly Thr Ile Ser Leu Phe Cys Asn Met	
20 25 30	
tca tac att gtt gtt aac tat agt cac tct gct ctt atg tct aac tat	203
Ser Tyr Ile Val Val Asn Tyr Ser His Ser Ala Leu Met Ser Asn Tyr	
35 40 45	
aga act tat acc ttt tat cta act gta tat tta tac ctc tta atc tac	251
Arg Thr Tyr Thr Phe Tyr Leu Thr Val Tyr Leu Tyr Leu Leu Ile Tyr	
50 55 60	
ttc tcc tcc tct ccc cct ccc gac c	276
Phe Ser Ser Ser Pro Pro Pro Asp	
65 70	

<210> 2627  
 <211> 476  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 286..474

<400> 2627	
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gatggactct gaggaagcct ggtcaagtgg gcctgaccaa aaaattggat agagaagagg	120
tactctcctg atgtccaaca ccatggtagg gatccctggg gatgggtgtga actctctact	180
gggatggctc ctaaaatatg caaaaagaga tgctgaaatg tcagaaaagc cctgacagct	240
tgagaagaa gggattaaag ggcctaggag cttgggcatg ctaca atg gat cta cca	297



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<210> 2630
<211> 331
<212> DNA
<213> Homo sapiens
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<400> 2630

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<210> 2631
<211> 194
<212> DNA
<213> Homo sapiens
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<400> 2631

1683

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His	Gly	Ala	Gly	Thr	Cys	Ala	Ser	Ala	Arg	Ser	Cys	Pro
	15					20					25	
agc	aac	cag	cgt	acc	tgg	ctg	tgc	aca	gtg	gct	gga	ccc
Ser	Asn	Gln	Arg	Thr	Trp	Leu	Cys	Thr	Val	Ala	Gly	Pro
	30					35					40	
agc	cta	gat	cac	aca	cct	gct	aag	ggc	aag	cca	ggc	gtg
Ser	Leu	Asp	His	Thr	Pro	Ala	Lys	Gly	Lys	Pro	Gly	Val
	45					50					55	

98

146

194

<210> 2632

<211> 391

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 39..389

<400> 2632

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				Met	Glu	Gly	Gly	Gly	Gly			
				1					5			
cgc	gat	gag	cct	tca	gcc	tgc	cgg	gca	ggg	gac	gtg	aac
Arg	Asp	Glu	Pro	Ser	Ala	Cys	Arg	Ala	Gly	Asp	Val	Asn
			10				15				20	
cct	aag	aag	gaa	gac	att	ctt	ctt	ttg	gcc	gat	gaa	aaa
Pro	Lys	Lys	Glu	Asp	Ile	Leu	Leu	Leu	Ala	Asp	Glu	Lys
			25				30				35	
gat	ctt	tca	ttg	tct	tct	tcg	agt	gca	aat	gaa	gat	gat
Asp	Leu	Ser	Leu	Ser	Ser	Ser	Ala	Asn	Glu	Asp	Asp	Glu
			40			45				50		
ttc	gga	ccc	ttt	gga	cat	aaa	gaa	aga	tgt	att	gct	gcc
Phe	Gly	Pro	Phe	Gly	His	Lys	Glu	Arg	Cys	Ile	Ala	Ala
			55			60			65			70
tta	aat	aat	ccg	gtt	ccc	gaa	cag	cct	ccg	ttg	ccc	aca
Leu	Asn	Asn	Pro	Val	Pro	Glu	Gln	Pro	Pro	Leu	Pro	Thr
			75					80				85
ccc	ttt	gcc	tgg	agc	cct	ctg	gcc	ggg	gag	aag	ttc	gtg
Pro	Phe	Ala	Trp	Ser	Pro	Leu	Ala	Gly	Glu	Lys	Phe	Val
			90				95					100
aaa	gaa	gct	cac	tta	ctg	gct	tta	cac	att	gag	agc	agc
Lys	Glu	Ala	His	Leu	Leu	Ala	Leu	His	Ile	Glu	Ser	Ser
			105				110					115

56

104

152

200

248

296

344

391

<210> 2633

<211> 232

<212> DNA

<213> Homo sapiens

<220>

<221> CDS  
<222> 66..230

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atgga atg gtt acg ccc ctc cca aat ctc ctt cta tcc ggg tta cag caa 110  
Met Val Thr Pro Leu Pro Asn Leu Leu Ser Gly Leu Gln Gln  
1 5 10 15  
gga aag gct ccg ttt ggt gct act atg cat gtc cct aac ctt tct agc 158  
Gly Lys Ala Pro Phe Gly Ala Thr Met His Val Pro Asn Leu Ser Ser  
20 25 30  
act ttc tac tct ccg ctt ttt aac aca gag agt gca gat gca ggc tgg 206  
Thr Phe Tyr Ser Pro Leu Phe Asn Thr Glu Ser Ala Asp Ala Gly Trp  
35 40 45  
gtg ccc tct gcg gag tcc acg cct ct 232  
Val Pro Ser Ala Glu Ser Thr Pro  
50 55

<210> 2634  
<211> 315  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 136..315

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tatgggttct tgatgtgat cccacctaata tgatccagta taagaaattt gatcctgagt 120  
gcctttccaa gaaac atg agg ctc ccc gac cca ttc act cct aat cta aag 171  
Met Arg Leu Pro Asp Pro Phe Thr Pro Asn Leu Lys  
1 5 10  
gtg gac atg ttg agt gaa att aac att gct ccc cgg att ctc acc aat 219  
Val Asp Met Leu Ser Glu Ile Asn Ile Ala Pro Arg Ile Leu Thr Asn  
15 20 25  
ttc act gga gta atg cca cct cag ttc aaa aag gat ttg gat tcc tat 267  
Phe Thr Gly Val Met Pro Pro Gln Phe Lys Lys Asp Leu Asp Ser Tyr  
30 35 40  
ctt aaa act cga tca cca gtc act ttc ctg tct gat ctg cgc ast caa 315  
Leu Lys Thr Arg Ser Pro Val Thr Phe Leu Ser Asp Leu Arg Xaa Gln  
45 50 55 60

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<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 73..234

004220" 66666666

<400> 2635  
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ggatacaaac aa atg gaa gaa cat tcc atg ctc atg ggt agg aaa aga atc 111  
Met Glu Glu His Ser Met Leu Met Gly Arg Lys Arg Ile  
1 5 10  
aat atc gtg aaa atg gcc ata ctg ccc aag gta att tac aga ttc aat 159  
Asn Ile Val Lys Met Ala Ile Leu Pro Lys Val Ile Tyr Arg Phe Asn  
15 20 25  
gcc atc ccc atc aag cta cca atg act ttc ttc aca gaa ttg gaa aaa 207  
Ala Ile Pro Ile Lys Leu Pro Met Thr Phe Phe Thr Glu Leu Glu Lys  
30 35 40 45  
act act tta aag ttc ata tgg aac ctt 234  
Thr Thr Leu Lys Phe Ile Trp Asn Leu  
50

<210> 2636  
<211> 231  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 50..229

<400> 2636  
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Met Ala Val  
1  
gtc tca gag gac gac ttt cag cac agt tca aac tcc acc tac aga acc 106  
Val Ser Glu Asp Asp Phe Gln His Ser Ser Asn Ser Thr Tyr Arg Thr  
5 10 15  
aca agc agc agt ctc cga gct gac cag gag gca ctg ctt gag aag ctg 154  
Thr Ser Ser Ser Leu Arg Ala Asp Gln Glu Ala Leu Leu Glu Lys Leu  
20 25 30 35  
ctg gac cgc ccg ccc cct ggc ctg cag agg ccc gag gac cgc ttc tgt 202  
Leu Asp Arg Pro Pro Gly Leu Gln Arg Pro Glu Asp Arg Phe Cys  
40 45 50  
ggc aca tac atc atc ttc ttc agc ctg aa 231  
Gly Thr Tyr Ile Ile Phe Phe Ser Leu  
55 60

<210> 2637  
<211> 266  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 25..264

<400> 2637

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Met Leu Ala Met Cys Ser His Thr Xaa  
1 5  
agg gct gwg atg atg gca aag ast tcc ctt ccc aaa cca cgc tgg gct 99  
Arg Ala Xaa Met Met Ala Lys Xaa Ser Leu Pro Lys Pro Arg Trp Ala  
10 15 20 25  
gag tct gga gat ccc tgg ctt cca kyt gtt tgt gag gtc aat tac acc 147  
Glu Ser Gly Asp Pro Trp Leu Pro Xaa Val Cys Glu Val Asn Tyr Thr  
30 35 40  
cct ctg cat ggg gas gag aca agg ttc ctt tgg ctc atc atc ctt wrg 195  
Pro Leu His Gly Xaa Glu Thr Arg Phe Leu Trp Leu Ile Ile Leu Xaa  
45 50 55  
ctc aat gtt gga aat tca cca aca ttg att rks tca ttt gta gat tat 243  
Leu Asn Val Gly Asn Ser Pro Thr Leu Ile Xaa Ser Phe Val Asp Tyr  
60 65 70  
ctc atg ttg tat aat aca gcc aa 266  
Leu Met Leu Tyr Asn Thr Ala  
75 80

<210> 2638  
<211> 207  
<212> DNA  
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<220>  
<221> CDS  
<222> 25..207

<400> 2638  
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Met Thr His Leu Leu Asp Phe Pro His  
1 5  
agc aca cac gtc aaa tca tgt ttc cag aac atg gag atc tgc aag cgt 99  
Ser Thr His Val Lys Ser Cys Phe Gln Asn Met Glu Ile Cys Lys Arg  
10 15 20 25  
cgg gtg aat atg tat gac acg gtg aac cag agc aaa acc cct ttc atc 147  
Arg Val Asn Met Tyr Asp Thr Val Asn Gln Ser Lys Thr Pro Phe Ile  
30 35 40  
acg cac gtg gcc ccc agc acg tcc acc aac ctg acc atg acc ttt aac 195  
Thr His Val Ala Pro Ser Thr Ser Thr Asn Leu Thr Met Thr Phe Asn  
45 50 55  
aac cag cta act 207  
Asn Gln Leu Thr  
60

<210> 2639  
<211> 198  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 44..196

505-4000

1688



<210> 2641  
 <211> 299  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 11..298

<400> 2641  
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           Met Leu Tyr Ser Met Leu Gln Gly Leu Asp Thr Val Pro  
           1                  5                  10  
 gta ccc tgt gga ata gga cca aag atg gat gga atg aca gaa tgg gga 97  
 Val Pro Cys Gly Ile Gly Pro Lys Met Asp Gly Met Thr Glu Trp Gly  
           15                  20                  25  
 aat gtt aag ccc tct gtc ata aag cag acc agt gcc ttt gta gaa gga 145  
 Asn Val Lys Pro Ser Val Ile Lys Gln Thr Ser Ala Phe Val Glu Gly  
           30                  35                  40                  45  
 gtg aag atg cgc aca tat aag ccc ctc atg gac cgt cct aaa tgc caa 193  
 Val Lys Met Arg Thr Tyr Lys Pro Leu Met Asp Arg Pro Lys Cys Gln  
                   50                  55                  60  
 gga ctg gaa tcc cgg atc cag cat ttt gta cgt agg gga cga att gag 241  
 Gly Leu Glu Ser Arg Ile Gln His Phe Val Arg Arg Gly Arg Ile Glu  
                   65                  70                  75  
 cac cca cat tta ttc cat gag gaa gaa aca aaa gcc aaa agg gac tgt 289  
 His Pro His Leu Phe His Glu Glu Glu Thr Lys Ala Lys Arg Asp Cys  
                   80                  85                  90  
 aat gac act t  
 Asn Asp Thr 299  
           95

<210> 2642  
 <211> 317  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 136..315

<400> 2642  
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 cagaaccttc ctgaa atg agc aga aat tgt tca cta ggt ctt cag agt gra 171  
           Met Ser Arg Asn Cys Ser Leu Gly Leu Gln Ser Xaa  
           1                  5                  10  
 cgt cct tct gcc aga gac ttc cag cgg gcg gct cca aag gcc caa tgc 219  
 Arg Pro Ser Ala Arg Asp Phe Gln Arg Ala Ala Pro Lys Ala Gln Cys  
           15                  20                  25  
 aga gga gcc cgc gga gca tgt gct gag gga agt ctg cct ggt gag gct 267

Arg Gly Ala Arg Gly Ala Cys Ala Glu Gly Ser Leu Pro Gly Glu Ala  
 30 35 40  
 ggc agg tgg gag tct aat gca gtc agg agc att tgc atg cag tgg gtg 315  
 Gly Arg Trp Glu Ser Asn Ala Val Arg Ser Ile Cys Met Gln Trp Val  
 45 50 55 60  
 ga 317

<210> 2643  
 <211> 309  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 39..308

<400> 2643  
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 Met Phe Ile Glu Ala Leu  
 1 5  
 ttc acg ata gca aag act tgg aac caa ccc aaa tgt cca aca atg ata 104  
 Phe Thr Ile Ala Lys Thr Trp Asn Gln Pro Lys Cys Pro Thr Met Ile  
 10 15 20  
 gac tgg att aag aaa atg tgg cac ata tac acc atg gaa tac tat gca 152  
 Asp Trp Ile Lys Lys Met Trp His Ile Tyr Thr Met Glu Tyr Tyr Ala  
 25 30 35  
 gcc ata aaa aat gat gag ttc atg tcc ttt gta ggg aca tgg atg aaa 200  
 Ala Ile Lys Asn Asp Glu Phe Met Ser Phe Val Gly Thr Trp Met Lys  
 40 45 50  
 ttg gaa acc atc att ctc agt aaa cta tcg caa gaa caa aaa acc aaa 248  
 Leu Glu Thr Ile Ile Leu Ser Lys Leu Ser Gln Glu Gln Lys Thr Lys  
 55 60 65 70  
 cac cgc rhn att ctc act cat agg tgg gaa ttg aac aat gag atc aca 296  
 His Arg Xaa Ile Leu Thr His Arg Trp Glu Leu Asn Asn Glu Ile Thr  
 75 80 85  
 tgg aca cag gaa g 309  
 Trp Thr Gln Glu  
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<210> 2644  
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 <212> DNA  
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<220>  
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 <222> 100..369

<400> 2644  
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 ccgcctatgc cctccactcc tttccactgt taacccaag atg gaa aag ctt atg 114  
 Met Glu Lys Leu Met

cca agg gtc att tct cag gat atg cac ata aca gga aaa tgt gtt ttt	1	5	
Pro Arg Val Ile Ser Gln Asp Met His Ile Thr Gly Lys Cys Val Phe			162
10	15	20	
atc caa att ccc aca acc cac cag cca tgt gat ctt ggg caa ctt aga			210
Ile Gln Ile Pro Thr Thr His Gln Pro Cys Asp Leu Gly Gln Leu Arg			
25	30	35	
acc tcc aag gag ggt ctg gct ctg tta tct atg ctg gag tgc agt ggc			258
Thr Ser Lys Glu Gly Leu Ala Leu Leu Ser Met Leu Glu Cys Ser Gly			
40	45	50	
atg agc ata gct cac tgc agc ctc aac ctt ccg ggc ata agc aat cct			306
Met Ser Ile Ala His Cys Ser Leu Asn Leu Pro Gly Ile Ser Asn Pro			
55	60	65	
cct gcc tca gcc ttc cga gta gct ggg act aca ggt gtg cac cgt cat			354
Pro Ala Ser Ala Phe Arg Val Ala Gly Thr Thr Gly Val His Arg His			
70	75	80	85
gcc cag cta att ttt a			370
Ala Gln Leu Ile Phe			
90			

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tcccatcagg aaaccccagg agtcttgtgt agagatccag gagagggcgg cgtg atg	117
Met	
1	
gat gac aag agt gaa gat tcc atg tcc gtc tcc acc ttg agc ttc gvt	165
Asp Asp Lys Ser Glu Asp Ser Met Ser Val Ser Thr Leu Ser Phe Xaa	
5	10
gtg aac aga ccc atc acg ggg tct ttt gat cat acc gtt gta gtg tgg	213
Val Asn Arg Pro Ile Thr Gly Ser Phe Asp His Thr Val Val Val Trp	
20	25
gac gct gat act gga agg aag gta aat atc tta att ggt cat tgt gct	261
Asp Ala Asp Thr Gly Arg Lys Val Asn Ile Leu Ile Gly His Cys Ala	
35	40
gag att agc agt gcc tca ttc aat tgg gat tgc tct cta ata tta act	309
Glu Ile Ser Ser Ala Ser Phe Asn Trp Asp Cys Ser Leu Ile Leu Thr	
50	55
ggc tct atg gac aaa acc tgc a	331
Gly Ser Met Asp Lys Thr Cys	
70	

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<213> Homo sapiens

<220>

<221> CDS

<222> 5..208

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Met Leu Arg Lys His Thr Phe Gly Lys Lys Arg Glu Ser Gln His	
1 5 10 15	
cct aac tca gtc act tat gat ctt ctg tat ttc ctt ggt ctt ccc tct	97
Pro Asn Ser Val Thr Tyr Asp Leu Leu Tyr Phe Leu Gly Leu Pro Ser	
20 25 30	
gag cat gtg tac ttt tac tta acc ttt gaa gta att aca gtt aca gca	145
Glu His Val Tyr Phe Tyr Leu Thr Phe Glu Val Ile Thr Val Thr Ala	
35 40 45	
tat ata cag tct agc ttc tgc ttt tta aac tta aat agc ata gat att	193
Tyr Ile Gln Ser Ser Phe Cys Phe Leu Asn Leu Asn Ser Ile Asp Ile	
50 55 60	
ttt ccc tgt cac tcc c	209
Phe Pro Cys His Ser	
65	

<210> 2647

<211> 381

<212> DNA

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<220>

<221> CDS

<222> 102..380

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tatttgatcc cgtcatgtgc atacagggat aatttgactt c atg ctt cct gat ctg	116
Met Leu Pro Asp Leu	
1 5	
cat gcc ctt tat ttc ttt gtc ttg cct gat tac tct gtc tca gac ctt	164
His Ala Leu Tyr Phe Phe Val Leu Pro Asp Tyr Ser Val Ser Asp Leu	
10 15 20	
ttg tac ttt gtt aaa agg tgt gaa agt ggg cat act tgt ttt gtt tca	212
Leu Tyr Phe Val Lys Arg Cys Glu Ser Gly His Thr Cys Phe Val Ser	
25 30 35	
gat tat aga gag aaa gct ttc agc act ttc cca tta tgc atg atg tta	260
Asp Tyr Arg Glu Lys Ala Phe Ser Thr Phe Pro Leu Cys Met Met Leu	
40 45 50	
gct gtg ggt atg tta ctt att acc ttt att atg ttg agg tac gtt ctt	308
Ala Val Gly Met Leu Leu Ile Thr Phe Ile Met Leu Arg Tyr Val Leu	
55 60 65	
tct att att att ata att ktk ktt aat ttt ttt ttt gag atg gag tct	356
Ser Ile Ile Ile Ile Ile Xaa Xaa Asn Phe Phe Phe Glu Met Glu Ser	
70 75 80 85	

cgc tct gtc acc cag ctg gag tgc a  
 Arg Ser Val Thr Gln Leu Glu Cys  
 90

381

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 gcatttgtag gaggcactag tctgatacag aagatttggg atgatgaaat tgttcagac 120  
 ttttacgtag ctgttcacaga aata atg cct gaa ctt aat cga tta agg aag 171  
 Met Pro Glu Leu Asn Arg Leu Arg Lys  
 1 5  
 aaa ctg aat aaa aaa tat cca aag ctt tct cga aat tcc att ggc cgt 219  
 Lys Leu Asn Lys Lys Tyr Pro Lys Leu Ser Arg Asn Ser Ile Gly Arg  
 10 15 20 25  
 gac atc ccc aaa atg ctt gaa tta ttt aaa aat gga cat gaa att aag 267  
 Asp Ile Pro Lys Met Leu Glu Leu Phe Lys Asn Gly His Glu Ile Lys  
 30 35 40  
 gta gat gaa gaa agg gag aac ttt ctc cag acc aaa ata gca aca ttg 315  
 Val Asp Glu Glu Arg Glu Asn Phe Leu Gln Thr Lys Ile Ala Thr Leu  
 45 50 55  
 gat atg tca agt gac cag ata gct gcc aat ctg caa gca gtt att aat 363  
 Asp Met Ser Ser Asp Gln Ile Ala Ala Asn Leu Gln Ala Val Ile Asn  
 60 65 70  
 gaa gtt tgt agg cac aga ccg ctg aat ttg ggt acc 399  
 Glu Val Cys Arg His Arg Pro Leu Asn Leu Gly Thr  
 75 80 85

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<222> 227..421

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 ggattctata aaactggaga gtaatcctaa gaaaaatcat cagaagaaag gaattttag 180  
 aactaaaact gcaaacaatcc agaattcttga tgggtgtgcca agccaa atg tca act 235  
 Met Ser Thr  
 1  
 gga act caa cca aaa act aaa aaa ttg agg caa aag aag cat gtg act 283

Gly	Thr	Gln	Pro	Lys	Thr	Lys	Lys	Leu	Arg	Gln	Lys	Lys	His	Val	Thr		
5						10				15							
ggc	tcc	gtg	ctg	ccg	ggg	tcc	cgc	aat	acg	ctc	agt	tat	atg	agg	att		331
Gly	Ser	Val	Leu	Pro	Gly	Ser	Arg	Asn	Thr	Leu	Ser	Tyr	Met	Arg	Ile		
20					25				30					35			
cac	aat	ttc	cca	tca	nva	ttg	tgg	ctg	tca	aga	atg	atc	atg	att	ttc		379
His	Asn	Phe	Pro	Ser	Xaa	Leu	Trp	Leu	Ser	Arg	Met	Ile	Met	Ile	Phe		
				40				45					50				
ttg	aaa	gga	cct	tgt	aga	acc	tct	ttg	cag	acg	act	aaa	tac				421
Leu	Lys	Gly	Pro	Cys	Arg	Thr	Ser	Leu	Gln	Thr	Thr	Lys	Tyr				
			55					60					65				

<210> 2650

<211> 272

<212> DNA

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<221> CDS

<222> 21..272

<400> 2650

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		Met	Phe	Thr	Ala	Met	Pro	Pro	Leu	Thr	Leu	Gly					
		1				5					10						
ata	ttt	gag	aga	tca	tgc	aga	aaa	gag	aac	atg	ttg	aag	tac	cct	gaa		101
Ile	Phe	Glu	Arg	Ser	Cys	Arg	Lys	Glu	Asn	Met	Leu	Lys	Tyr	Pro	Glu		
			15				20				25						
tta	tac	aaa	aca	tct	cag	aat	gcc	ctg	gac	ttc	aac	acc	aag	gtt	ttc		149
Leu	Tyr	Lys	Thr	Ser	Gln	Asn	Ala	Leu	Asp	Phe	Asn	Thr	Lys	Val	Phe		
		30				35				40							
tgg	gtt	cat	tgt	tta	aat	ggc	ctc	ttc	cac	tca	gtt	att	ctg	ttt	tgg		197
Trp	Val	His	Cys	Leu	Asn	Gly	Leu	Phe	His	Ser	Val	Ile	Leu	Phe	Trp		
		45				50				55							
ttt	cca	cta	aaa	gcc	ctt	cag	tat	ggg	act	gca	ttt	gga	aat	ggg	aaa		245
Phe	Pro	Leu	Lys	Ala	Leu	Gln	Tyr	Gly	Thr	Ala	Phe	Gly	Asn	Gly	Lys		
		60			65				70					75			
acc	tgc	gat	tat	ctg	cta	ctg	gga	aga									272
Thr	Ser	Asp	Tyr	Leu	Leu	Leu	Gly	Arg									
				80													

<210> 2651

<211> 199

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 23..199

<400> 2651

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------------	------------	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	--	--	--	--	----

	Met	Lys	Phe	Gln	His	Cys	Leu	Leu	His	Thr	
	1				5					10	
tcc tgt tac tgt aaa gga aat tat ctt tct tcc cta tcc ttt cag gaa											100
Ser Cys Tyr Cys Lys Gly Asn Tyr Leu Ser Ser Leu Ser Phe Gln Glu											
	15				20					25	
cct cta tta tgg att atc cca tct cct tgt ctt tcc aac aat tcc ttc											148
Pro Leu Leu Trp Ile Ile Pro Ser Pro Cys Leu Ser Asn Asn Ser Phe											
	30				35					40	
gtt aag ata tcc tta ctg cca att cgt tgt gct gaa gtc cct cac gta											196
Val Lys Ile Ser Leu Leu Pro Ile Arg Cys Ala Glu Val Pro His Val											
	45				50					55	
gtt											199
Val											

<210> 2652  
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 <212> DNA  
 <213> Homo sapiens

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 <222> 66..482

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agaag atg gcg gga tca gtg gcc gac agc gat gcc gtg gtg aaa cta gat	110
Met Ala Gly Ser Val Ala Asp Ser Asp Ala Val Val Lys Leu Asp	
1 5 10 15	
gat ggc cat tta aac aac tct ttg agc tct cca gtt caa gcg gac gtg	158
Asp Gly His Leu Asn Asn Ser Leu Ser Ser Pro Val Gln Ala Asp Val	
	20 25 30
tac ttc cca cga ctg ata gtt cca ttt tgt ggg cac att aaa ggt ggc	206
Tyr Phe Pro Arg Leu Ile Val Pro Phe Cys Gly His Ile Lys Gly Gly	
	35 40 45
atg aga cca ggc aag aag gtg tta gtg atg ggc atc gta gac ctc aac	254
Met Arg Pro Gly Lys Lys Val Leu Val Met Gly Ile Val Asp Leu Asn	
	50 55 60
cca gag agc ttt gca atc agc ttg acc tgt ggg gac tca gaa gac cct	302
Pro Glu Ser Phe Ala Ile Ser Leu Thr Cys Gly Asp Ser Glu Asp Pro	
	65 70 75
cct gcc gat gtg gca atc gaa ctc aaa gct gtg ttc aca gat cgg cag	350
Pro Ala Asp Val Ala Ile Glu Leu Lys Ala Val Phe Thr Asp Arg Gln	
	80 85 90 95
cta ctc aga aat tct tgt ata tct ggg gag agg ggt gaa gaa cag tca	398
Leu Leu Arg Asn Ser Cys Ile Ser Gly Glu Arg Gly Glu Glu Gln Ser	
	100 105 110
gca atc cct tac ttt cca ttc att cca gac cag cca ttc agg tgg aaa	446
Ala Ile Pro Tyr Phe Pro Phe Ile Pro Asp Gln Pro Phe Arg Trp Lys	
	115 120 125
ttc ttt gtg agc acc acg ttt ccg agt gtt tgt gga	482
Phe Phe Val Ser Thr Thr Phe Pro Ser Val Cys Gly	
	130 135

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gaa aag gag ata tta cgg cgg cag atc cgc cta ctg cag ggt ctg att																106
Glu Lys Glu Ile Leu Arg Arg Gln Ile Arg Leu Leu Gln Gly Leu Ile																
				5					10					15		
gat gac tac aaa acc ctc cac ggc aat gcc ccg gcc cct ggt acc cca																154
Asp Asp Tyr Lys Thr Leu His Gly Asn Ala Pro Ala Pro Gly Thr Pro																
				20					25					30		
gca gct tct ggg tgg cag cca ccc act tac cac agt ggc aga gcc ttt																202



004220" 666E7560

Ala Ala Ser Gly Trp Gln Pro Pro Thr Tyr His Ser Gly Arg Ala Phe	
35 40 45 50	
agt gcc cgc tac cct cgt cca agc cgg agg ggc tac tct tcc cac cat	250
Ser Ala Arg Tyr Pro Arg Pro Ser Arg Arg Gly Tyr Ser Ser His His	
55 60 65	
ggg cct tcg tgg cgc aag aaa tac tcc ctc gtg aat cgg ccc csg gga	298
Gly Pro Ser Trp Arg Lys Lys Tyr Ser Leu Val Asn Arg Pro Xaa Gly	
70 75 80	
nnc tca gac cct cct gcc gac cat gct gtg cgg bcg ttg cac ggg gcc	346
Xaa Ser Asp Pro Pro Ala Asp His Ala Val Arg Xaa Leu His Gly Ala	
85 90 95	
cgg ggg ggc cag cct cct gtc ccg cag cag cat gtc ctt gag aga cag	394
Arg Gly Gly Gln Pro Pro Val Pro Gln Gln His Val Leu Glu Arg Gln	
100 105 110	
gtc cag ctc agt cag ggt cag aac gt	420
Val Gln Leu Ser Gln Gly Gln Asn	
115 120	
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ttgaa atg tct atg att tta tct gcc tca gtc att cgt gtc aga gat gga	110
Met Ser Met Ile Leu Ser Ala Ser Val Ile Arg Val Arg Asp Gly	
1 5 10 15	
ctg cca ctt tct gct tct act gat tat gaa caa agc aca gga atg cag	158
Leu Pro Leu Ser Ala Ser Thr Asp Tyr Glu Gln Ser Thr Gly Met Gln	
20 25 30	
gag tgc aga aag tat ttt aaa atg ctt tcg agg aaa ctt gct caa ctt	206
Glu Cys Arg Lys Tyr Phe Lys Met Leu Ser Arg Lys Leu Ala Gln Leu	
35 40 45	
cct gat aga tgt aca ctg aaa act gga cat tat aac att aat ttt att	254
Pro Asp Arg Cys Thr Leu Lys Thr Gly His Tyr Asn Ile Asn Phe Ile	
50 55 60	
agc tct ctg gga gtg agc tac atg atg ttg tgc act gaa aat tac cca	302
Ser Ser Leu Gly Val Ser Tyr Met Met Leu Cys Thr Glu Asn Tyr Pro	
65 70 75	
aat gtt ctc gcc ttc tct ttc ctg gat gag ctt cag aag gag ttc att	350
Asn Val Leu Ala Phe Ser Phe Leu Asp Glu Leu Gln Lys Glu Phe Ile	
80 85 90 95	
act act tat aac atg atg aag aca aat act gct gtc aga cca tac tgt	398
Thr Thr Tyr Asn Met Met Lys Thr Asn Thr Ala Val Arg Pro Tyr Cys	
100 105 110	
ttc att gaa ttt gat act tca ttc aga gga cca agc agc gat ata ata	446
Phe Ile Glu Phe Asp Thr Ser Phe Arg Gly Pro Ser Ser Asp Ile Ile	
115 120 125	

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Ile Pro Gly Leu  
130

459

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<220>  
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gtatgattgg agccttctga gcaaagaaca tcagcaccca ggtaaaggg tgattgacgg 180  
acaactgta atg gcc cca act gtc caa aag tgt aaa ggc aga gag ctt cgg 231  
Met Ala Pro Thr Val Gln Lys Cys Lys Gly Arg Glu Leu Arg  
1 5 10  
aga cat aga cac ttc ctc tct ccc ctg aag aca ttt gct tac atg gca 279  
Arg His Arg His Phe Leu Ser Pro Leu Lys Thr Phe Ala Tyr Met Ala  
15 20 25 30  
gga tgt tgg agg aaa gac ctt ctt tct tcc ctc cca aaa gat gat ttt 327  
Gly Cys Trp Arg Lys Asp Leu Leu Ser Ser Leu Pro Lys Asp Asp Phe  
35 40 45  
tta aaa ttg cat agc aaa agt ctc ttt ata tct ctc cag agc gat gca 375  
Leu Lys Leu His Ser Lys Ser Leu Phe Ile Ser Leu Gln Ser Asp Ala  
50 55 60  
ggg aca gat gga aaa gca ccc t 397  
Gly Thr Asp Gly Lys Ala Pro  
65

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ttagcgaata agamcatcaa cc atg tct tac act cca gga gtt ggt ggt gac 172  
Met Ser Tyr Thr Pro Gly Val Gly Gly Asp  
1 5 10  
ccc gcc cag ttg gcc cag agg atc tct tct aac atc cag aag atc aca 220  
Pro Ala Gln Leu Ala Gln Arg Ile Ser Ser Asn Ile Gln Lys Ile Thr  
15 20 25  
cag tgt tct gtg gaa ata caa aga act ctg aat caa ctt gga aca cct 268

004220"665E7560

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			30					35				40					
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Gln	Asp	Ser	Pro	Glu	Leu	Arg	Gln	Gln	Leu	Gln	Gln	Lys	Gln	Gln	Tyr		
		45					50				55						
act	aac	cag	ctt	gcc	aaa	gaa	aca	gat	aag	tac	att	aaa	gag	ttt	gga		364
Thr	Asn	Gln	Leu	Ala	Lys	Glu	Thr	Asp	Lys	Tyr	Ile	Lys	Glu	Phe	Gly		
		60				65				70							
tct	ctg	ccc	acc	acc	ccc	agt	gaa	cag	cgt	caa	agg	aaa	atw	cag	aag		412
Ser	Leu	Pro	Thr	Thr	Pro	Ser	Glu	Gln	Arg	Gln	Arg	Lys	Ile	Gln	Lys		
		75			80				85						90		
gat	cgc	tta	gtg	gca	gag	ttc	aca	aca	tca								442
Asp	Arg	Leu	Val	Ala	Glu	Phe	Thr	Thr	Ser								
			95						100								

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 <211> 241  
 <212> DNA  
 <213> Homo sapiens

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		1				5				10							
ggt	cgg	gtt	acc	cac	aaa	ggg	aag	ccc	atc	aga	cta	aca	gct	gat	ctc		98
Gly	Arg	Val	Thr	His	Lys	Gly	Lys	Pro	Ile	Arg	Leu	Thr	Ala	Asp	Leu		
		15				20					25						
tca	gca	gaa	act	cta	caa	gcc	aga	aga	gag	tgg	ggg	cca	ata	ttc	aac		146
Ser	Ala	Glu	Thr	Leu	Gln	Ala	Arg	Arg	Glu	Trp	Gly	Pro	Ile	Phe	Asn		
		30			35				40								
att	ctt	aaa	gaa	aag	gat	ttt	cac	ccc	aga	att	tca	tat	gca	gcc	aaa		194
Ile	Leu	Lys	Glu	Lys	Asp	Phe	His	Pro	Arg	Ile	Ser	Tyr	Ala	Ala	Lys		
		45			50				55						60		
cta	aac	ttc	gta	agt	gaa	gga	gaa	ata	aaa	tac	ttt	aca	gac	aag	ta		241
Leu	Asn	Phe	Val	Ser	Glu	Gly	Glu	Ile	Lys	Tyr	Phe	Thr	Asp	Lys			
			65						70						75		

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 <212> DNA  
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Met Tyr Pro Asn  
1  
tgg ggc cgg tat ggc ggg agc agc cac tat ccg ccg cca ccg gtc cca 164  
Trp Gly Arg Tyr Gly Gly Ser Ser His Tyr Pro Pro Pro Pro Val Pro  
5 10 15 20  
ccg ccg ccg cca gtg gcg ctt cct gag gcc tcg ccg ggg ccc ggg tac 212  
Pro Pro Pro Pro Val Ala Leu Pro Glu Ala Ser Pro Gly Pro Gly Tyr  
25 30 35  
tcg agc tcg acg act ccc gcg gcc ccc tcc tcc tcg ggc ttc atg agc 260  
Ser Ser Ser Thr Thr Pro Ala Ala Pro Ser Ser Ser Gly Phe Met Ser  
40 45 50  
ttc cgc gaa cag cac ttg gcg cas tcc agc agc tgc agc aga tgc acc 308  
Phe Arg Glu Gln His Leu Ala Xaa Ser Ser Ser Cys Ser Arg Cys Thr  
55 60 65  
aga agc aaa tgc agt gcg tgc ttc agc ccg cac c 342  
Arg Ser Lys Cys Ser Ala Cys Phe Ser Pro His  
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atg gaa tgc ctt cag gag ttc cct gaa cat cat aaa atg atc ctc gac 104  
Met Glu Cys Leu Gln Glu Phe Pro Glu His His Lys Met Ile Leu Asp  
10 15 20  
cga ttg aat gaa cag cga gag cag gac cgg ttt act gac atc acc cta 152  
Arg Leu Asn Glu Gln Arg Glu Gln Asp Arg Phe Thr Asp Ile Thr Leu  
25 30 35  
att gtc gac gga cac cat ttt aag gct cac aag gct gtt ttg gct gct 200  
Ile Val Asp Gly His His Phe Lys Ala His Lys Ala Val Leu Ala Ala  
40 45 50  
tgt agt aag ttc ttc tac aaa ttc ttt cag gag ttt acc caa gaa cca 248  
Cys Ser Lys Phe Phe Tyr Lys Phe Phe Gln Glu Phe Thr Gln Glu Pro  
55 60 65 70  
ttg gtg gag ata gaa ggt gca 269  
Leu Val Glu Ile Glu Gly Ala  
75

<210> 2661  
<211> 318  
<212> DNA  
<213> Homo sapiens

<220>  
 <221> CDS  
 <222> 99..317

<400> 2661

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acagatgtac aattaacagc ttctctcatt tttctgactc ggtgatccca agaaggccta      60
tactggagac caatttgagg cacacctgta aacggata atg gac atg gtg agc aac      116
                               Met Asp Met Val Ser Asn
                               1           5
cag cac ccc tgg ttt ggc atg gag cag gag tat acc ctc atg ggg aca      164
Gln His Pro Trp Phe Gly Met Glu Gln Glu Tyr Thr Leu Met Gly Thr
          10           15           20
gat ggg cac ccc ttt ggt tgg cct tcc aac ggc ttc cca ggg ccc cag      212
Asp Gly His Pro Phe Gly Trp Pro Ser Asn Gly Phe Pro Gly Pro Gln
          25           30           35
ggt cca tat tac tgt ggt gtg gga gca gac aga gcc tat ggc agg gac      260
Gly Pro Tyr Tyr Cys Gly Val Gly Ala Asp Arg Ala Tyr Gly Arg Asp
          40           45           50
atc gtg gag gcc cat tac cgg gcc tgc ttg tat gct gga gtc aag att      308
Ile Val Glu Ala His Tyr Arg Ala Cys Leu Tyr Ala Gly Val Lys Ile
          55           60           65           70
gcg ggg tgc a
Ala Gly Cys      318
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<210> 2662  
 <211> 442  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 132..440

<400> 2662

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cttacatcaa agttcaaaac tacagccgag gcaacagagc aagaccctgc ctcaaaaaga      60
aaacagaaag ttcaaaaact aaatggcata ttttttaggg atgtgcagat acgtggtgaa      120
agaaacgtac t atg aag aaa agt gtg gga ata ata aag act aaa gca gga      170
          Met Lys Lys Ser Val Gly Ile Ile Lys Thr Lys Ala Gly
          1           5           10
act gat tcc ctc tgc agg aga agg gaa ggg acc cgg gac tca ggc agg      218
Thr Asp Ser Leu Cys Arg Arg Arg Glu Gly Thr Arg Asp Ser Gly Arg
          15           20           25
gcc tcc agg gag cat cca cag tta tgt ttc ttg aga ttc tac tcc cta      266
Ala Ser Arg Glu His Pro Gln Leu Cys Phe Leu Arg Phe Tyr Ser Leu
          30           35           40           45
aac ttg gtg gag gtc ctc tgt gtc caa tgt gtc aat att ctt tat acc      314
Asn Leu Val Glu Val Leu Cys Val Gln Cys Val Asn Ile Leu Tyr Thr
          50           55           60
tta ccc atc ctg tac aaa tgc ttt att tct att caa tac tta gaa ggc      362
Leu Pro Ile Leu Tyr Lys Cys Phe Ile Ser Ile Gln Tyr Leu Glu Gly
          65           70           75
agt tat aaa cna gat gca ttc aat agc aag gtg gca gat gaa cat cag      410
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Ser Tyr Lys Xaa Asp Ala Phe Asn Ser Lys Val Ala Asp Glu His Gln  
80 85 90  
gaa gga aca ttc atg agc ttc cat cca cgg aa  
Glu Gly Thr Phe Met Ser Phe His Pro Arg  
95 100

442

<210> 2663  
<211> 221  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 24..221

<400> 2663  
cccaagatag ggaggagaag atc atg tct cag gag cca ttg agc ttc aag gac 53  
Met Ser Gln Glu Pro Leu Ser Phe Lys Asp  
1 5 10  
gtg gct gtg gtc ttc act gag gag gag cta gag ctg ctg gac tct acc 101  
Val Ala Val Val Phe Thr Glu Glu Glu Leu Glu Leu Leu Asp Ser Thr  
15 20 25  
cag agg cag ctg tac caa gat gtg atg cag gag aat ttc agg aac cta 149  
Gln Arg Gln Leu Tyr Gln Asp Val Met Gln Glu Asn Phe Arg Asn Leu  
30 35 40  
ctc tca gtg ggt gag agg aat cct ctg ggt aat tgg ram wga act tct 197  
Leu Ser Val Gly Glu Arg Asn Pro Leu Gly Asn Trp Xaa Xaa Thr Ser  
45 50 55  
tgg agt gtt ctt gtt cct ggt aga 221  
Trp Ser Val Leu Val Pro Gly Arg  
60 65

<210> 2664  
<211> 313  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 87..311

<400> 2664  
aaacggatcc gcgccatgaa gaaagccaac aaggagcgag aactcaagtg ccagcacatg 60  
caggagctga ccaagcgcaa saggag atg gtg gcg ctg cgg ctg gag cac gag 113  
Met Val Ala Leu Arg Leu Glu His Gln  
1 5  
cgg ctg agc gcc aag ctg aag gac tac tac atc ttc aac aag tac cta 161  
Arg Leu Ser Ala Lys Leu Lys Asp Tyr Tyr Ile Phe Asn Lys Tyr Leu  
10 15 20 25  
gag aag gtg gtg gag aac tcc gag gaa tct cgc tgg gcg cac atc cag 209  
Glu Lys Val Val Glu Asn Ser Glu Glu Ser Arg Trp Ala His Ile Gln  
30 35 40



ttc gcc aag gac ttc ctg gca ggt gga gtg gcc gca gcc atc tcc aag	160
Phe Ala Lys Asp Phe Leu Ala Gly Gly Val Ala Ala Ala Ile Ser Lys	
10 15 20	
ayg gcg gta gcg ccc atc gag cgg gty wag ctg ctg skg cag gtg cag	208
Xaa Ala Val Ala Pro Ile Glu Arg Val Xaa Leu Xaa Gln Val Gln	
25 30 35	
cat gcc agc aag cag atc act gsa gat aag caa tac aaa ggc gwk	253
His Ala Ser Lys Gln Ile Thr Xaa Asp Lys Gln Tyr Lys Gly Xaa	
40 45 50	

<210> 2667  
 <211> 346  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 90..344

<400> 2667	
aaaaccagca acccgagaag cgataatgat gtgaagacag ttgaggagca catccctggc	60
gtaagactgg actgcctgtg gtccaaacc atg ctt cac cac gag ctg gct gct	113
Met Leu His His Glu Leu Ala Ala	
1 5	
gaa tgt aag agt gca ggc tac ccc ggg act ttg atc ccc tac aga tgt	161
Glu Cys Lys Ser Ala Gly Tyr Pro Gly Thr Leu Ile Pro Tyr Arg Cys	
10 15 20	
gac cta tca aat gaa gag gac atc ctc tcc atg ttc tca gct atc cgt	209
Asp Leu Ser Asn Glu Glu Asp Ile Leu Ser Met Phe Ser Ala Ile Arg	
25 30 35 40	
tct cag cac agc ggt gta gac atc tgc atc aac aat gct ggc ttg gcc	257
Ser Gln His Ser Gly Val Asp Ile Cys Ile Asn Asn Ala Gly Leu Ala	
45 50 55	
cgg cct gac acc ctg ctc tca ggc agc acc agt ggt tgg aag gac atg	305
Arg Pro Asp Thr Leu Leu Ser Gly Ser Thr Ser Gly Trp Lys Asp Met	
60 65 70	
ttc aat gtg aac gtg ctg gcc tca gca tct gca cac ggg aa	346
Phe Asn Val Asn Val Leu Ala Ser Ala His Gly	
75 80 85	

<210> 2668  
 <211> 321  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 123..320

<400> 2668	
aaatatttga agaccccaact gacagtgatt tgcataaact aaaatctcca agccaggrca	60
acacagacag ctacttcaga gggaaaacat tattgctggt tcagcaagcc tcctctcaga	120



004220"6666T350

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gc atg act tat tct gaa aag gat gaa agg gaa agt agc ctt cct aat      167
  Met Thr Tyr Ser Glu Lys Asp Glu Arg Glu Ser Ser Leu Pro Asn
    1             5             10             15
ggt cgg agc gtc tcc ctc atg gac ctc cag gac act cat gct gct caa      215
Gly Arg Ser Val Ser Leu Met Asp Leu Gln Asp Thr His Ala Ala Gln
              20             25             30
gtg gag cat gca tct gtc atg ctt gat gtg cct ata cgc ttg acc gga      263
Val Glu His Ala Ser Val Met Leu Asp Val Pro Ile Arg Leu Thr Gly
              35             40             45
agc cag ctt tcc ata acc cag gtg gcc agc atc aaa cag ctg cgg gaa      311
Ser Gln Leu Ser Ile Thr Gln Val Ala Ser Ile Lys Gln Leu Arg Glu
              50             55             60
acc cag agc a
Thr Gln Ser
    65
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<210> 2669  
 <211> 383  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 231..383

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<400> 2669
ctctgcattt aaggttcttc catgttaagc atagcttgat cgctcttttt tttagtgtcg      60
aataatattc cattttctag gtttaccaca gttgatttat ccattcacct actgaaggat      120
atcttggttt cttccaagtt ttggcaatta tgaaaaaagc tggataaac gtgtgtgtgc      180
aggtttttgt gtggatataa tttttcaact atgggtaaat accaaggtgc atg att      236
                                   Met Ile
                                   1
gct gga ttg tat ggt aaa act atg ttt agt tgt aga aga aac tgc caa      284
Ala Gly Leu Tyr Gly Lys Thr Met Phe Ser Cys Arg Arg Asn Cys Gln
    5             10             15
act gtc ttc caa tgt gat tgt gtt gat ttt gta ttc cta cca gca atg      332
Thr Val Phe Gln Cys Asp Cys Val Asp Phe Val Phe Leu Pro Ala Met
    20             25             30
aat gag agt wct tgt gac tcc acg ttt ttg cca tca ttt ggw gtt gtt      380
Asn Glu Ser Xaa Cys Asp Ser Thr Phe Leu Pro Ser Phe Gly Val Val
    35             40             45             50
agt
Ser
    383
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<210> 2670  
 <211> 219  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 53..217

<400> 2670

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caaccagagc ctggagcact cctaccagag ggtctccagc cagctgcaga gc atg cac      58
                                     Met His
                                     1
act ctg ctg aga gag aag gag gaa gag ctg gag cgc att aag gaa gca      106
Thr Leu Leu Arg Glu Lys Glu Glu Glu Leu Glu Arg Ile Lys Glu Ala
      5              10              15
cat gag aag gtt ctg gag aag aag gag cag gac ctc aat gag gct ttg
His Glu Lys Val Leu Glu Lys Lys Glu Gln Asp Leu Asn Glu Ala Leu      154
      20              25              30
gtt aaa atg gtt gcc ttg ggg agc agc tta gag gaa aca gaa att aag      202
Val Lys Met Val Ala Leu Gly Ser Ser Leu Glu Glu Thr Glu Ile Lys
      35              40              45              50
ctc cag gca aaa gaa ga
Leu Gln Ala Lys Glu      219
      55
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<210> 2671

<211> 331

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 11..331

<400> 2671

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agaacagagt atg caa ttt ggg aag ctg tgg tgt ggc tgc agt gga gag      49
      Met Gln Phe Gly Lys Leu Trp Cys Gly Cys Ser Gly Glu
      1              5              10
ttc cca aca agg cta cgc aga aga acc ccc ttg act gaa gca atg gag      97
Phe Pro Thr Arg Leu Arg Arg Arg Thr Pro Leu Thr Glu Ala Met Glu
      15              20              25
ggg ggt cca gct gtc tgc tgc cag gat cct cgg gca gag ctg gta gaa      145
Gly Gly Pro Ala Val Cys Cys Gln Asp Pro Arg Ala Glu Leu Val Glu
      30              35              40              45
cgg gtg gca gcc atc gat gtg act cac ttg gag gag gca gat ggt ggc      193
Arg Val Ala Ala Ile Asp Val Thr His Leu Glu Glu Ala Asp Gly Gly
      50              55              60
cca gag cct act aga aac ggt gtg gac ccc cca cca cgg gcc aga gct      241
Pro Glu Pro Thr Arg Asn Gly Val Asp Pro Pro Pro Arg Ala Arg Ala
      65              70              75
gcc tct gtg atc cct ggc agt act tca aga ctg ctc cca gcc cgg cct      289
Ala Ser Val Ile Pro Gly Ser Thr Ser Arg Leu Leu Pro Ala Arg Pro
      80              85              90
agc ctc tca gcc agg aag ctt tcc cta cag gag cgg cca gca      331
Ser Leu Ser Ala Arg Lys Leu Ser Leu Gln Glu Arg Pro Ala
      95              100              105
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<210> 2672

<211> 226

<212> DNA

# THE HISTORY OF THE

<221> CDS

<400> 2672

<210> 2673

$\langle 211 \rangle$  411

<212> DNA

<213> Homo sapiens

**<220>**

<221> CDS

<222> 228..410

<400> 2673

<210> 2674

<211> 298

<212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 66..296

<400> 2674  
 agtgggtgag ggtcgggctt gaagccatag ctgcggggacc gtactcgtct cccccgacgc 60  
 agacc atg gag agc gcg ctg gcg gtg ccc cgg ctg ccc ccg cat gat cca 110  
 Met Glu Ser Ala Leu Ala Val Pro Arg Leu Pro Pro His Asp Pro  
 1 5 10 15  
 ggg acg ccg gtg ctg tcg gtg gtg gac atg cac acg ggc ggc gag ccc 158  
 Gly Thr Pro Val Leu Ser Val Val Asp Met His Thr Gly Gly Glu Pro  
 20 25 30  
 ttg cgt atc gtg ctg gcg ggg tgt ccg gag gtg tct ggg ccc acc ctg 206  
 Leu Arg Ile Val Leu Ala Gly Cys Pro Glu Val Ser Gly Pro Thr Leu  
 35 40 45  
 ctg gcc aag cgg cgc tac atg cgc cag cac ctt gac cac gtg cgg cga 254  
 Leu Ala Lys Arg Arg Tyr Met Arg Gln His Leu Asp His Val Arg Arg  
 50 55 60  
 cgg ctc atg ttc gag ccc cga ggg cac cgg gac atg tac ggg gc 298  
 Arg Leu Met Phe Glu Pro Arg Gly His Arg Asp Met Tyr Gly  
 65 70 75

<210> 2675  
 <211> 268  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 95..268

<400> 2675  
 gttgccagg gtttctaaga gcagtatgga cctctgaagt aactcacaca gtagagaatc 60  
 cagataccat gcttgaaagg aaaagacttt ggct atg aca act gac ttt gat ttt 115  
 Met Thr Thr Asp Phe Asp Phe  
 1 5  
 ggg gga cct gga cac ttt tgg tgt cct cct cac tct tgg ctc atg gct 163  
 Gly Gly Pro Gly His Phe Trp Cys Pro Pro His Ser Trp Leu Met Ala  
 10 15 20  
 gga agc tca gtt agt caa atg aag att gac ttg gtg cac agc caa acc 211  
 Gly Ser Ser Val Ser Gln Met Lys Ile Asp Leu Val His Ser Gln Thr  
 25 30 35  
 tca aga gca ctt gct tcc atc cct ttc cct caa gct tct cct ctg cac 259  
 Ser Arg Ala Leu Ala Ser Ile Pro Phe Pro Gln Ala Ser Pro Leu His  
 40 45 50 55  
 tca acc cta  
 Ser Thr Leu 268

<210> 2676

<211> 302  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 65..301

<400> 2676  
 attcaccact cagcagctgg tagagaagta agcctgcttg gcaaccacct gcagggctgc 60  
 agag atg aat tac att ttc gga aac aac aca ctt cta tac tct cgc ggc 109  
 Met Asn Tyr Ile Phe Gly Asn Asn Thr Leu Leu Tyr Ser Arg Gly  
 1 5 10 15  
 agt cga gga ggc aat act agc tct agc cat ggc tca gca ggc cca aag 157  
 Ser Arg Gly Gly Asn Thr Ser Ser Ser His Gly Ser Ala Gly Pro Lys  
 20 25 30  
 cag aaa cac tgg gca aaa aag ggc tcg tca gat gaa ctg caa gct gag 205  
 Gln Lys His Trp Ala Lys Lys Gly Ser Ser Asp Glu Leu Gln Ala Glu  
 35 40 45  
 cca gaa cct tca cgc tgg cag cag ata gtt gca ttt ttc act cga aga 253  
 Pro Glu Pro Ser Arg Trp Gln Gln Ile Val Ala Phe Phe Thr Arg Arg  
 50 55 60  
 cac agc ttt att gac tgc atc tcg gta gcc acc agc tcc acc cag gcg t 302  
 His Ser Phe Ile Asp Cys Ile Ser Val Ala Thr Ser Ser Thr Gln Ala  
 65 70 75

<210> 2677  
 <211> 334  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 129..332

<400> 2677  
 attaagatta gaaactgact gcttcagggc tcagctggaa gaagaaaaaa gaaaaaaaac 60  
 tcaaccgact ggggttacac aggcagtctg ttgaaacagc caggaaacaa ttacttgaat 120  
 atcaaact atg tta aaa gga agg tgc cca tcg gtg tca gct cca tca ttg 170  
 Met Leu Lys Gly Arg Cys Pro Ser Val Ser Ala Pro Ser Leu  
 1 5 10  
 ata act gat tct gtt ata tca gtg cca tca tgg aaa tct gag aga ccg 218  
 Ile Thr Asp Ser Val Ile Ser Val Pro Ser Trp Lys Ser Glu Arg Pro  
 15 20 25 30  
 act gct ata tca gag cat tgg gat caa ggt cag aga ctc aag ttg agt 266  
 Thr Ala Ile Ser Glu His Trp Asp Gln Gly Gln Arg Leu Lys Leu Ser  
 35 40 45  
 cct aac aaa tac caa ccc ata caa cct ata cag acb tcc aaa tta gaa 314  
 Pro Asn Lys Tyr Gln Pro Ile Gln Pro Ile Gln Thr Ser Lys Leu Glu  
 50 55 60  
 caa gat cat ttt cag gtg cg 334  
 Gln Asp His Phe Gln Val

65

<210> 2678  
<211> 221  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 52..219

<400> 2678  
cctttggccc ccataatctaa atcattgtgg acttgctcag tagaatcttg c atg gaa 57  
Met Glu  
1  
tat tgt aga ata atg tat gat ata ttt cct ttc aaa aag ctg gtg aat 105  
Tyr Cys Arg Ile Met Tyr Asp Ile Phe Pro Phe Lys Lys Leu Val Asn  
5 10 15  
ttt att gtg agt gac tct gga gca cat gtt tta aat tct tgg act caa 153  
Phe Ile Val Ser Asp Ser Gly Ala His Val Leu Asn Ser Trp Thr Gln  
20 25 30  
gaa gac caa aat tta cag gag cta atg gca gca tta gcc gct gtt ggg 201  
Glu Asp Gln Asn Leu Gln Glu Leu Met Ala Ala Leu Ala Ala Val Gly  
35 40 45 50  
cct cct aat cct cgg gca gt 221  
Pro Pro Asn Pro Arg Ala  
55

<210> 2679  
<211> 329  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 99..329

<400> 2679  
atgtccgcag gggagatttt gggaatccac tgagaaaatt caagttggtg ttcttggggg 60  
agcagagcgt cgggaagacg tctctgatta cgagggttc atg tac gac agc ttc gac 116  
Met Tyr Asp Ser Phe Asp  
1 5  
aac aca tac cag gca acc att ggg att gac ttc ttg tca aaa acc atg 164  
Asn Thr Tyr Gln Ala Thr Ile Gly Ile Asp Phe Leu Ser Lys Thr Met  
10 15 20  
tac ttg gag gac cgc acg gtg cga ctg cag ctc tgg gac aca gct ggt 212  
Tyr Leu Glu Asp Arg Thr Val Arg Leu Gln Leu Trp Asp Thr Ala Gly  
25 30 35  
cag gag agg ttc cgc agc ctg atc ccc agc tac atc cgg gac tcc acg 260  
Gln Glu Arg Phe Arg Ser Leu Ile Pro Ser Tyr Ile Arg Asp Ser Thr  
40 45 50  
gtg gct gtg gtg gtg tac gac atc aca aat ctc aac tcc ttc caa cag 308

Val Ala Val Val Val Tyr Asp Ile Thr Asn Leu Asn Ser Phe Gln Gln  
 55 60 65 70  
 acc tct aag tgg atc gac atc  
 Thr Ser Lys Trp Ile Asp Ile  
 75

329

<210> 2680  
 <211> 296  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 102..296

<400> 2680  
 agaggagttc ttattgccac agcctttgga gtaaaacagc tcagagcttg aacctggctc 60  
 tgttgcataa tagctgtagc tcctcagttt tcattctataa a atg aaa ata acg gag 116  
 Met Lys Ile Thr Glu  
 1 5  
 atg agg att aag gga aat tat ata cac agc act ttg cag cca aat act 164  
 Met Arg Ile Lys Gly Asn Tyr Ile His Ser Thr Leu Gln Pro Asn Thr  
 10 15 20  
 gga tac aag gat gaa aat ggg ata aat aga cca gtc tgt tcc tat gtt 212  
 Gly Tyr Lys Asp Glu Asn Gly Ile Asn Arg Pro Val Cys Ser Tyr Val  
 25 30 35  
 aaa cca ctt cga gct gga cgg ctt ctt gat act cca agg caa gca gca 260  
 Lys Pro Leu Arg Ala Gly Arg Leu Leu Asp Thr Pro Arg Gln Ala Ala  
 40 45 50  
 aga ttt gtt aat gtc ctt ggt tat gaa cga gcc cva 296  
 Arg Phe Val Asn Val Leu Gly Tyr Glu Arg Ala Xaa  
 55 60 65

<210> 2681  
 <211> 174  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 18..173

<400> 2681  
 gacatggata taatcct atg atc tta ctt aga aat tcc cag ttt tat ttg 50  
 Met Ile Leu Leu Arg Asn Ser Gln Phe Tyr Leu  
 1 5 10  
 tat ttg ttt gtg tgt gtg ggt gcc tat ttc att ctg tgc agt ttt atc 98  
 Tyr Leu Phe Val Cys Val Cys Ala Tyr Phe Ile Leu Cys Ser Phe Ile  
 15 20 25  
 aca cat gtt gat ata tct ccc acc aca gtt aag ata cag agt agt tct 146  
 Thr His Val Asp Ile Ser Pro Thr Thr Val Lys Ile Gln Ser Ser Ser  
 30 35 40

tca ccc caa aga tcc ttc tca ttg ccc c  
 Ser Pro Gln Arg Ser Phe Ser Leu Pro  
 45 50

174

<210> 2682  
 <211> 298  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 99..296

<400> 2682  
 atctttttgt tgctgccgga caaggagtgg taaaatttca gccttcctt tggccttggg 60  
 actcagtga gaacaatttg agaagtgccc tgacagak atg tgt gtt ctc tat gat 116  
 Met Cys Val Leu Tyr Asp  
 1 5  
 gtt ctc agt att gtt agg gat aaa aaa ttt atg act ctt gat cct gtc 164  
 Val Leu Ser Ile Val Arg Asp Lys Lys Phe Met Thr Leu Asp Pro Val  
 10 15 20  
 tct cag gat gca ctt cct cca aaa cag aat cct cag acg ttg caa ttg 212  
 Ser Gln Asp Ala Leu Pro Pro Lys Gln Asn Pro Gln Thr Leu Gln Leu  
 25 30 35  
 ata tst aaa aag arg tsa ctt gct gga gca gca caa atc tta ttg aag 260  
 Ile Xaa Lys Lys Xaa Xaa Leu Ala Gly Ala Ala Gln Ile Leu Leu Lys  
 40 45 50  
 ggg gca gaa aga ctg act aaa tca gtt acc gaa aac cr 298  
 Gly Ala Glu Arg Leu Thr Lys Ser Val Thr Glu Asn  
 55 60 65

<210> 2683  
 <211> 204  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 19..204

<400> 2683  
 caaaagtctc aaaaaatt atg aag aag aaa gag tca tct tct atg ttg gct 51  
 Met Lys Lys Lys Glu Ser Ser Ser Met Leu Ala  
 1 5 10  
 aca gtt aaa gaa gaa gtc tct ggt agt tca gca gct gtt acg gag aat 99  
 Thr Val Lys Glu Glu Val Ser Gly Ser Ser Ala Ala Val Thr Glu Asn  
 15 20 25  
 gct gat agt gat aga att tct gat gaa gca aat agt aat ttt aac caa 147  
 Ala Asp Ser Asp Arg Ile Ser Asp Glu Ala Asn Ser Asn Phe Asn Gln  
 30 35 40  
 gga act gaa aat gaa caa agt aaa gaa act caa agt cat gag agt aaa 195  
 Gly Thr Glu Asn Glu Gln Ser Lys Glu Thr Gln Ser His Glu Ser Lys



45 50 55 204  
 ctg ggt gtt  
 Leu Gly Val  
 60

<210> 2684  
 <211> 366  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 124..366

<400> 2684  
 ggctcctggc cggagcaaga tggctgaggg cgagcggcas cgccgccaga ttcttcagag 60  
 gagggccctc cagccactca gaacttcac attccaaaaa aggagatcca cacagttcca 120  
 gac atg ggc aaa tgg aag cgt tct cag gcc att gag aaa cta gtc gct 168  
 Met Gly Lys Trp Lys Arg Ser Gln Ala Ile Glu Lys Leu Val Ala  
 1 5 10 15  
 ctt ctc aac acg ctg gac agg tgg att gat gag act cct cca gtg gac 216  
 Leu Leu Asn Thr Leu Asp Arg Trp Ile Asp Glu Thr Pro Pro Val Asp  
 20 25 30  
 cag ccc tct cgg ttt ggg aat aag gca tac agg acc tgg tat gcc aaa 264  
 Gln Pro Ser Arg Phe Gly Asn Lys Ala Tyr Arg Thr Trp Tyr Ala Lys  
 35 40 45  
 ctt gat gag gaa gca gaa aac ttg gtg gcc aca gtg gtc cct acc cat 312  
 Leu Asp Glu Glu Ala Glu Asn Leu Val Ala Thr Val Val Pro Thr His  
 50 55 60  
 ctg gca gct gct gtg cct gag gtg gct gtt tac cta aag gag tca gtg 360  
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 65 70 75  
 ggg atc 366  
 Gly Ile  
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<210> 2685  
 <211> 264  
 <212> DNA  
 <213> Homo sapiens

<220>  
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 <222> 23..262

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 Met Pro Ala His Ser Leu Val Met Ser Ser  
 1 5 10  
 ccg gcc ctc ccg gcc ttc ctg ctc tgc agc acg ctg ctg gtc atc aag 100  
 Pro Ala Leu Pro Ala Phe Leu Leu Cys Ser Thr Leu Leu Val Ile Lys  
 15 20 25

atg tac gtg gtg gcc atc atc acg ggc caa gtg agg ctg cgg aag aag 148  
 Met Tyr Val Val Ala Ile Ile Thr Gly Gln Val Arg Leu Arg Lys Lys  
                   30                  35                  40  
 gcc ttt gcc aac ccc gag gat gcc ctg aga cac gga ggc ccc cag tat 196  
 Ala Phe Ala Asn Pro Glu Asp Ala Leu Arg His Gly Gly Pro Gln Tyr  
                   45                  50                  55  
 tgc agg agc gac cnn gac gtg gaa cgc tgc vnm ggg ccc acc gga ass 244  
 Cys Arg Ser Asp Xaa Asp Val Glu Arg Cys Xaa Gly Pro Thr Gly Xaa  
                   60                  65                  70  
 cat gga gac cac cta ccc ca 264  
 His Gly Asp His Leu Pro  
                   75                  80

<210> 2686  
 <211> 436  
 <212> DNA  
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<220>  
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 <222> 60..434

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 atg tgt gga tgg aac tcc ttg cac cag gct tct ttt cag gaa aat gct 107  
 Met Cys Gly Trp Asn Ser Leu His Gln Ala Ser Phe Gln Glu Asn Ala  
   1                  5                  10                  15  
 gag atc ata aaa ttg ctt ctt aga aaa gga gca aac aag gaa tgc cag 155  
 Glu Ile Ile Lys Leu Leu Leu Arg Lys Gly Ala Asn Lys Glu Cys Gln  
                   20                  25                  30  
 gat gac ttt gga atc aca cct tta ttt gtg gct gct cag tat ggc aag 203  
 Asp Asp Phe Gly Ile Thr Pro Leu Phe Val Ala Ala Gln Tyr Gly Lys  
                   35                  40                  45  
 cta gaa agc ttg agc ata ctt att tca tgc ggt gca aat gtc aat tgt 251  
 Leu Glu Ser Leu Ser Ile Leu Ile Ser Ser Gly Ala Asn Val Asn Cys  
                   50                  55                  60  
 caa gcc ttg gac aaa gct aca ccc ttg ttc att gct gct caa gag gga 299  
 Gln Ala Leu Asp Lys Ala Thr Pro Leu Phe Ile Ala Ala Gln Glu Gly  
   65                  70                  75                  80  
 cac aca aaa tgt gtg gag ctt ttg ctc tcc agt ggg gca gat cct gat 347  
 His Thr Lys Cys Val Glu Leu Leu Leu Ser Ser Gly Ala Asp Pro Asp  
                   85                  90                  95  
 ctt tac tgt aat gag gac agt tgg cag tta cct att cat gca gct gca 395  
 Leu Tyr Cys Asn Glu Asp Ser Trp Gln Leu Pro Ile His Ala Ala Ala  
                   100                  105                  110  
 caa atg ggc cat aca aaa atc ttg gac ttg tta ata cca ct 436  
 Gln Met Gly His Thr Lys Ile Leu Asp Leu Leu Ile Pro  
                   115                  120                  125

<210> 2687  
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 <212> DNA  
 <213> Homo sapiens

**SECRET**

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gcc aca gct gcc tcg aat ccc tac agc att ctc agt tcc acc tcc cta	106						
Ala Thr Ala Ala Ser Asn Pro Tyr Ser Ile Leu Ser Ser Thr Ser Leu							
	5					10	
gtc cat gcg gac tct gcg ggc atg cag cag ggg agt cct ttc cgc aac	154						
Val His Ala Asp Ser Ala Gly Met Gln Gln Gly Ser Pro Phe Arg Asn							
	20					25	
cct cag aaa ctt ctc caa agt gat tac ttg cag gga gtt ccc agc aat	202						
Pro Gln Lys Leu Leu Gln Ser Asp Tyr Leu Gln Gly Val Pro Ser Asn							
	35					40	
ggg cat ccc ctc ggg cat cac tgg gtg acc agt ctg agc gac ggg ggc	250						
Gly His Pro Leu Gly His His Trp Val Thr Ser Leu Ser Asp Gly Gly							
	50					55	
cca tgg tcc tcc aca ctg gcc acc agc ccc ctg gac cag cag gac gtg	298						
Pro Trp Ser Ser Thr Leu Ala Thr Ser Pro Leu Asp Gln Gln Asp Val							
	70					75	
aag ccc ggg cgc gaa gac ctg caa ct	324						
Lys Pro Gly Arg Glu Asp Leu Gln							
	85						

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			1				5					10				
gtt	atg	cgg	cct	ctg	ggt	ggc	caa	ctt	tgg	cgc	ttc	ttg	cct	cgc	gga	101
Val	Met	Arg	Pro	Leu	Gly	Gly	Gln	Leu	Trp	Arg	Phe	Leu	Pro	Arg	Gly	
			15						20					25		
ctc	gag	ttt	tgg	ggc	cca	gcc	gag	ggg	act	gcg	aga	gtc	ttg	ctg	agg	149
Leu	Glu	Phe	Trp	Gly	Pro	Ala	Glu	Gly	Thr	Ala	Arg	Val	Leu	Leu	Arg	
			30					35					40			
cag	tyc	tgc	gcg	cgg	caa	gcg	gag	gcg	tgg	cgt	gcc	tcg	ggg	cgc	cct	197
Gln	Xaa	Cys	Ala	Arg	Gln	Ala	Glu	Ala	Trp	Arg	Ala	Ser	Gly	Arg	Pro	
		45					50					55				
ggc	tat	tgc	ctg	gga	acc	cgg	ccc	ctc	aac	acg						230
Gly	Tyr	Cys	Leu	Gly	Thr	Arg	Pro	Leu	Asn	Thr						

60

65

<210> 2689  
 <211> 373  
 <212> DNA  
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 <222> 215..373

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 gtggagtga gtggtatgat catagctcac tgcagcttca aacttctggg ctcaagcaat 120  
 cctcccacct cagcctccca agcacctggg actacaggta tgcaccatca caccagcta 180  
 atttaaaaaa aaaaaaaatt tttttttggt agag atg aga tct tgc tat gta gcc 235  
 Met Arg Ser Cys Tyr Val Ala  
 1 5  
 cag gct ggc ctw aaa sga ycc tcc tgc ctc agc ttc cca aag tgc tgw 283  
 Gln Ala Gly Leu Lys Xaa Xaa Ser Cys Leu Ser Phe Pro Lys Cys Xaa  
 10 15 20  
 aat gac agg tgt aas sca cct cgc cca gcc cca aat cac tta ttg awt 331  
 Asn Asp Arg Cys Xaa Xaa Pro Arg Pro Ala Pro Asn His Leu Leu Xaa  
 25 30 35  
 aat gca tct tkg tyc cac tac rgt aaa ttt agc ctg gtt tgt 373  
 Asn Ala Ser Xaa Xaa His Tyr Xaa Lys Phe Ser Leu Val Cys  
 40 45 50

<210> 2690  
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 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 53..235

<400> 2690  
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 Met Ser  
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 tcc ctg ggc ttc acg agc aag gag cag cgg aac ctg ggc ctc ctc gtg 106  
 Ser Leu Gly Phe Thr Ser Lys Glu Gln Arg Asn Leu Gly Leu Leu Val  
 5 10 15  
 cac ctc atg acc agc aac ccc aaa atc ctg tac gcg cct gcg ggc tct 154  
 His Leu Met Thr Ser Asn Pro Lys Ile Leu Tyr Ala Pro Ala Gly Ser  
 20 25 30  
 gag gtc gac cgc gtc atc ctc aag gcc aac gag act ttt gct ttt gtg 202  
 Glu Val Asp Arg Val Ile Leu Lys Ala Asn Glu Thr Phe Ala Phe Val  
 35 40 45 50  
 ggc aac gtg act cac tat gcc cag gtc tgg ctc gt 237  
 Gly Asn Val Thr His Tyr Ala Gln Val Trp Leu

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60

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 <212> DNA  
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<220>  
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 <222> 237..422

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 tcggtgaagc aagagctcag aggggagagg ggctggcctg gcatgaccct cgccagtccc 180  
 cccacctggc tgggtgatgt cccccggccc gggttctggg gcccttggc agtacc atg 239  
 Met  
 1  
 gag caa ctg aca acc ctc cca cgg cct ggg gac cct gga gcc atg gag 287  
 Glu Gln Leu Thr Thr Leu Pro Arg Pro Gly Asp Pro Gly Ala Met Glu  
 5 10 15  
 cca tgg gca ctg ccc acc tgg cat agc tgg act cca ggt cga ggg ggt 335  
 Pro Trp Ala Leu Pro Thr Trp His Ser Trp Thr Pro Gly Arg Gly Gly  
 20 25 30  
 gaa cct agc agt gca gcc cca agc atc gct gat act cct ccg gca gct 383  
 Glu Pro Ser Ser Ala Ala Pro Ser Ile Ala Asp Thr Pro Pro Ala Ala  
 35 40 45  
 ctg cag ctt caa gaa ctg agg tct gag gag agt tcc aag cc 424  
 Leu Gln Leu Gln Glu Leu Arg Ser Glu Glu Ser Ser Lys  
 50 55 60

<210> 2692  
 <211> 404  
 <212> DNA  
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<220>  
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 <222> 109..402

<400> 2692  
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 Met Ala Ser  
 1  
 gcc aca gac tcg cgc tat ggg cag aag gag tcc tcg gat cag aac ttc 165  
 Ala Thr Asp Ser Arg Tyr Gly Gln Lys Glu Ser Ser Asp Gln Asn Phe  
 5 10 15  
 gac tac atg ttc aag att ctc atc atc ggc aac agc agc gtg ggc aag 213  
 Asp Tyr Met Phe Lys Ile Leu Ile Ile Gly Asn Ser Ser Val Gly Lys  
 20 25 30 35  
 acg tcc ttc ctc ttc cgc tat gct gac gac tcg ttc acg cct gcc ttc 261

Thr	Ser	Phe	Leu	Phe	Arg	Tyr	Ala	Asp	Asp	Ser	Phe	Thr	Pro	Ala	Phe	
			40					45					50			
gtc	agc	acc	gtg	ggc	atc	gac	ttc	aag	gtc	aag	acc	atc	tat	cgc	aac	309
Val	Ser	Thr	Val	Gly	Ile	Asp	Phe	Lys	Val	Lys	Thr	Ile	Tyr	Arg	Asn	
			55					60					65			
gac	aag	agg	atc	aag	ctg	cag	atc	tgg	gac	aca	gca	ggg	caa	gag	cgg	357
Asp	Lys	Arg	Ile	Lys	Leu	Gln	Ile	Trp	Asp	Thr	Ala	Gly	Gln	Glu	Arg	
			70					75				80				
tac	cgg	acc	atc	acc	acc	gca	tac	tac	cgg	ggc	gct	atg	ggc	ttc	at	404
Tyr	Arg	Thr	Ile	Thr	Thr	Ala	Tyr	Tyr	Arg	Gly	Ala	Met	Gly	Phe		
			85				90				95					

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 <211> 390  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 119..388

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actgggagct	accattaaga	aggatgaaca	gaccggggcg	atcattgtgg	ccagaatc											118
atg	aga	gga	gga	gct	gca	gat	aga	agt	ggt	ctt	att	cat	gtt	ggt	gat	166
Met	Arg	Gly	Gly	Ala	Ala	Asp	Arg	Ser	Gly	Leu	Ile	His	Val	Gly	Asp	
1			5						10				15			
gaa	ctt	agg	gaa	gtc	aac	ggg	ata	cca	gtg	gag	gat	aaa	agg	cct	gag	214
Glu	Leu	Arg	Glu	Val	Asn	Gly	Ile	Pro	Val	Glu	Asp	Lys	Arg	Pro	Glu	
			20					25				30				
gaa	ata	ata	cag	att	ttg	gct	cag	tct	cag	gga	gca	att	aca	ttt	aag	262
Glu	Ile	Ile	Gln	Ile	Leu	Ala	Gln	Ser	Gln	Gly	Ala	Ile	Thr	Phe	Lys	
			35				40					45				
att	ata	ccc	ggc	agc	aaa	gag	gag	aca	cca	tca	aaa	gaa	ggc	aag	atg	310
Ile	Ile	Pro	Gly	Ser	Lys	Glu	Glu	Thr	Pro	Ser	Lys	Glu	Gly	Lys	Met	
			50			55					60					
ttt	atc	aaa	gcc	ctc	ttt	gac	tat	aat	cct	aat	gag	gat	aag	gca	att	358
Phe	Ile	Lys	Ala	Leu	Phe	Asp	Tyr	Asn	Pro	Asn	Glu	Asp	Lys	Ala	Ile	
			65			70			75				80			
cca	tgt	aag	gaa	gct	ggg	ctt	tct	ttc	aaa	aa						390
Pro	Cys	Lys	Glu	Ala	Gly	Leu	Ser	Phe	Lys							
			85						90							

<210> 2694  
 <211> 305  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 78..305

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<400> 2694

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                Met Leu Gly Phe Leu Gly Gly Val Ser Trp Ala
                1             5             10
atg cta gtt gca aga act tgc caa ttg tat cca aat gca gca gca tct      158
Met Leu Val Ala Arg Thr Cys Gln Leu Tyr Pro Asn Ala Ala Ala Ser
                15             20             25
act tta gtt cat aag ttc ttt tta gtt ttt tcc aag tgg gaa tgg cca      206
Thr Leu Val His Lys Phe Phe Leu Val Phe Ser Lys Trp Glu Trp Pro
                30             35             40
aat cct gtg ctg ctg aag caa cca gaa gaa agc aat ttg aat ttg cct      254
Asn Pro Val Leu Leu Lys Gln Pro Glu Glu Ser Asn Leu Asn Leu Pro
                45             50             55
gtc tgg gat cct cgg gta aat cca tca gat agg tat cat ctc atg ccc      302
Val Trp Asp Pro Arg Val Asn Pro Ser Asp Arg Tyr His Leu Met Pro
        60             65             70             75
agg                                                                305
Arg

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<210> 2695

<211> 314

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 104..313

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                Met Ala Ser Pro
                1
tct aga cag ccc ccg cca ggg ggt tca gga ctg ctt caa ggg agc cgg      163
Ser Arg Gln Pro Pro Pro Gly Gly Ser Gly Leu Leu Gln Gly Ser Arg
        5             10             15             20
gct cgt tca tat gga agc ctg gtg caa tgc gcc tgc tcc cca gtg agg      211
Ala Arg Ser Tyr Gly Ser Leu Val Gln Ser Ala Cys Ser Pro Val Arg
                25             30             35
gaa aga cgc ctg gag cat cag ttg gag ccc gga gac acc ctg gct gga      259
Glu Arg Arg Leu Glu His Gln Leu Glu Pro Gly Asp Thr Leu Ala Gly
                40             45             50
cta gca ctc aaa tat ggg gtg acg atg gaa cag att aaa cgt gca aac      307
Leu Ala Leu Lys Tyr Gly Val Thr Met Glu Gln Ile Lys Arg Ala Asn
                55             60             65
cgc ctt a                                                                314
Arg Leu
        70

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<210> 2696

<211> 338

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 186..338

<400> 2696

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ccccaaacta caggtagagc ttctccagca ttgtgcttaa atgtttactt tacaaaacaa 120  
aactctctaa atgtagtttt gaaaaattag tctaaactta aattctgtaa ttatctgact 180  
ttaaa atg gtt cta tct tca aaa gct ctg ggg aaa cct gaa ctc ttt att 230  
Met Val Leu Ser Ser Lys Ala Leu Gly Lys Pro Glu Leu Phe Ile  
1 5 10 15  
ttt ttc tat gtc cat ttg ttt ttc tgc att att tgg tat att gtc tgt 278  
Phe Phe Tyr Val His Leu Phe Phe Cys Ile Ile Trp Tyr Ile Val Cys  
20 25 30  
ttg aca aca tcc att ctc ctc ctt ttc ctg cgc atg aat ctt cct tat 326  
Leu Thr Thr Ser Ile Leu Leu Leu Phe Leu Arg Met Asn Leu Pro Tyr  
35 40 45  
atc tac cat gcc 338  
Ile Tyr His Ala  
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<210> 2697

<211> 376

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 12..374

<400> 2697

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Met Ile Phe Ser Asp Met Asn Thr Val Ser Gly Ser Pro  
1 5 10  
aaa gtg cat cct cct aat ggg acc cgg ttt tac act ttt caa att gtt 98  
Lys Val His Pro Pro Asn Gly Thr Arg Phe Tyr Thr Phe Gln Ile Val  
15 20 25  
gcc ttg cgt gaa caa aat gtt cat ata caa aga aaa atg gca tca agc 146  
Ala Leu Arg Glu Gln Asn Val His Ile Gln Arg Lys Met Ala Ser Ser  
30 35 40 45  
gag gga tcc aca gag tca gaa cat ctt gaa ggg atg gaa cct gga cag 194  
Glu Gly Ser Thr Glu Ser Glu His Leu Glu Gly Met Glu Pro Gly Gln  
50 55 60  
aaa gtc cat gag aag cgt ttg tcc aat ggt tct ata gac tca acc gat 242  
Lys Val His Glu Lys Arg Leu Ser Asn Gly Ser Ile Asp Ser Thr Asp  
65 70 75  
gaa act agt caa ata gtt gaa cta caa gaa ttg ctt gaa aag caa aac 290  
Glu Thr Ser Gln Ile Val Glu Leu Gln Glu Leu Leu Glu Lys Gln Asn  
80 85 90  
tat gaa atg gcc cag atg aaa gaa cgt tta gca gcc ctt tct tcc cga 338



Tyr Glu Met Ala Gln Met Lys Glu Arg Leu Ala Ala Leu Ser Ser Arg  
 95 100 105

gtg gga gar gtg gaa cag gaa gca gag aca gcn aga aa 376  
 Val Gly Glu Val Glu Gln Glu Ala Glu Thr Ala Arg  
 110 115 120

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 <211> 171  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 6..170

<400> 2698  
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 Met Lys Ser Gly Lys Gly Arg Pro Ile Ser Phe Val Asp Ser Phe  
 1 5 10 15  
 cct ctt tcc att tgg att tgt caa cca aca aga tat gca gag tca caa 98  
 Pro Leu Ser Ile Trp Ile Cys Gln Pro Thr Arg Tyr Ala Glu Ser Gln  
 20 25 30  
 aaa gag ccg cag act tgt aat cag gta tct cta aat aca tca caa agt 146  
 Lys Glu Pro Gln Thr Cys Asn Gln Val Ser Leu Asn Thr Ser Gln Ser  
 35 40 45  
 gaa tct agt gat ctg gct ggc cac g 171  
 Glu Ser Ser Asp Leu Ala Gly His  
 50 55

<210> 2699  
 <211> 476  
 <212> DNA  
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<220>  
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 gaggggaaat gatgcagaca ctgccacca gcaagtgaga ggaaggactg aacatggaca 180  
 gaagggttg agacattgag ccttggctgc tttcacccat ccttcaatt gctgccctct 240  
 tttctaattg cctgagtctc caa atg gag cca agc tgg ggg cac cct ggc cag 293  
 Met Glu Pro Ser Trp Gly His Pro Gly Gln  
 1 5 10  
 gag atg tgg cct gct gtg ccc ctg aga aga gct gtc cca ggc aca cag 341  
 Glu Met Trp Pro Ala Val Pro Leu Arg Arg Ala Val Pro Gly Thr Gln  
 15 20 25  
 aga caa cat ttg gaa gtg gaa aat gcc tct gga gca gtc aga gtg ttg 389  
 Arg Gln His Leu Glu Val Glu Asn Ala Ser Gly Ala Val Arg Val Leu  
 30 35 40

gga agt ctc atc cca ttc tcc gtt tca gga acc ttc cct cag caa cag	437
Gly Ser Leu Ile Pro Phe Ser Val Ser Gly Thr Phe Pro Gln Gln Gln	
45 50 55	
cag aca gaa ggg act cag ttc agc ata ctc ggc aag tat	476
Gln Thr Glu Gly Thr Gln Phe Ser Ile Leu Gly Lys Tyr	
60 65 70	

<210> 2700  
 <211> 350  
 <212> DNA  
 <213> Homo sapiens

<220>  
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 <222> 99..350

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Met Phe Ser Leu Lys Pro	
1 5	
ccc aaa ccc acc ttc agg tcc tac ctc ctg cca ccg ccc cag act gac	164
Pro Lys Pro Thr Phe Arg Ser Tyr Leu Leu Pro Pro Pro Gln Thr Asp	
10 15 20	
gat aag atc aat tcg gaa ccg aag att aaa aaa ctg gag cca gtv ctt	212
Asp Lys Ile Asn Ser Glu Pro Lys Ile Lys Lys Leu Glu Pro Val Leu	
25 30 35	
ttg cca gga gaa att gtc gta aat gaa gtc aat ttt gtg aga aaa tgc	260
Leu Pro Gly Glu Ile Val Val Asn Glu Val Asn Phe Val Arg Lys Cys	
40 45 50	
att gca aca gac aca agc cag tac gat ttg tgg gga aag ctg ata tgc	308
Ile Ala Thr Asp Thr Ser Gln Tyr Asp Leu Trp Gly Lys Leu Ile Cys	
55 60 65 70	
agt aac ttc aaa atc tcc ttt att aca gat gac cca atg ccc	350
Ser Asn Phe Lys Ile Ser Phe Ile Thr Asp Asp Pro Met Pro	
75 80	

<210> 2701  
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 <212> DNA  
 <213> Homo sapiens

<220>  
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 <222> 143..319

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cttggacagt cagtctcgat ggagcaaagt aaaagacaaa gtagaaagtg atccacgtta	120
caaagcagta gatagttcat ca atg aga gaa gac ctt ttc aaa cag tac att	172
Met Arg Glu Asp Leu Phe Lys Gln Tyr Ile	
1 5 10	

gaa aaa ata gcc aag aat tta gac tca gaa aaa gaa aag gag ctt gaa 220  
 Glu Lys Ile Ala Lys Asn Leu Asp Ser Glu Lys Glu Lys Glu Leu Glu  
                   15                  20                  25  
 agg caa gcc cgc att gag gca agc ctt cga gaa cga gaa agg gag gtt 268  
 Arg Gln Ala Arg Ile Glu Ala Ser Leu Arg Glu Arg Glu Arg Glu Val  
                   30                  35                  40  
 caa aag gcc cgt tca gaa caa aca aaa gaa ata gat cga gag aga gag 316  
 Gln Lys Ala Arg Ser Glu Gln Thr Lys Glu Ile Asp Arg Glu Arg Glu  
                   45                  50                  55  
 cag t  
 Gln 320

<210> 2702  
 <211> 319  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 152..319

<400> 2702  
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 gatattatgt tgtataaaca ttcattctgag aacaatcaaaa gcagtagcca catggtgctg 120  
 gctcctttgc agcacaaaacc tgggtcatttt g atg act gta caa cag gaa gac 172  
                                   Met Thr Val Gln Gln Glu Asp  
                                   1                                  5  
 ttg aaa aat cac gtg gat tca tat tac cac cgc tct cak tkc atg gag 220  
 Leu Lys Asn His Val Asp Ser Tyr Tyr His Arg Ser Xaa Xaa Met Glu  
                   10                  15                  20  
 tct tct gat caa aaa agc tca cgt cgt att tct tct ttt cct ttc tct 268  
 Ser Ser Asp Gln Lys Ser Ser Arg Arg Ile Ser Ser Phe Pro Phe Ser  
                   25                  30                  35  
 ttt cta gaa att ggg tgt ttg tac cag aat gga att ttg ctt ctc ggt 316  
 Phe Leu Glu Ile Gly Cys Leu Tyr Gln Asn Gly Ile Leu Leu Leu Gly  
                   40                  45                  50                  55  
 tat  
 Tyr 319

<210> 2703  
 <211> 403  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 59..403

<400> 2703  
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 atg atg gct gat gac aat ata gaa gat tct aca gca aga tta gat aca 106  
 Met Met Ala Asp Asp Asn Ile Glu Asp Ser Thr Ala Arg Leu Asp Thr

1	5	10	15	
caa cac tct gaa gac atg aat gcc acc aga tct gaa gag cag ttc cat				154
Gln His Ser Glu Asp Met Asn Ala Thr Arg Ser Glu Glu Gln Phe His				
20	25	30		
gtt ata aac cac gca gag cad act ctt cgt aaa atg gag aac tac ttg				202
Val Ile Asn His Ala Glu Xaa Thr Leu Arg Lys Met Glu Asn Tyr Leu				
35	40	45		
aaa gag aaa caa cta tgt gat gtg cta ctg att gca gga cac ctc cgc				250
Lys Glu Lys Gln Leu Cys Asp Val Leu Leu Ile Ala Gly His Leu Arg				
50	55	60		
atc cca gcc cat agg ttg gtt ctc agc gca gtg tct gat tat ttt gct				298
Ile Pro Ala His Arg Leu Val Leu Ser Ala Val Ser Asp Tyr Phe Ala				
65	70	75	80	
gca atg ttt act aat gat gtg ctt gaa gcc aaa caa gaa gag gtc agg				346
Ala Met Phe Thr Asn Asp Val Leu Glu Ala Lys Gln Glu Glu Val Arg				
85	90	95		
atg gaa gga gta gat cca wat gcr cta aat tcc ttg gtg cag tat gct				394
Met Glu Gly Val Asp Pro Xaa Ala Leu Asn Ser Leu Val Gln Tyr Ala				
100	105	110		
tac aca gga				403
Tyr Thr Gly				
115				

<210> 2704  
 <211> 179  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 20..178

<400> 2704	
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Met Ala Xaa Pro Gly Glu Ala Glu Glu Glu Ala	
1	5
10	
aca gtn tac ctg gta gtg agc ggt atc ccc tcc gtg ttg cgc tcg gcc	100
Thr Val Tyr Leu Val Val Ser Gly Ile Pro Ser Val Leu Arg Ser Ala	
15	20
25	
cat tta cgg agc tat ttt agc cag tnc cga gaa gag cgc ggc ggt ggc	148
His Leu Arg Ser Tyr Phe Ser Gln Xaa Arg Glu Glu Arg Gly Gly Gly	
30	35
40	
ttc ctc tgt ttc cac tac cgg cat cgg cct g	179
Phe Leu Cys Phe His Tyr Arg His Arg Pro	
45	50

<210> 2705  
 <211> 321  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS

<222> 1..321

<400> 2705

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Met Arg Tyr Asn Glu Lys Glu Leu Gln Ala Leu Ser Arg Gln Pro Ala	
1 5 10 15	
gag atg gcg gcc gag ctg ggc atg agg ggc ccc aag aag ggc agc gtg	96
Glu Met Ala Ala Glu Leu Gly Met Arg Gly Pro Lys Lys Gly Ser Val	
20 25 30	
ctg aag cgg cgg ctg gtg aag ctg gtg gtg aat ttc ctc ttc tac ttt	144
Leu Lys Arg Arg Leu Val Lys Leu Val Val Asn Phe Leu Phe Tyr Phe	
35 40 45	
cgg aca gac gag gcc gag ccc gtc gga gcc ctg ctg ctg gag cgc tgc	192
Arg Thr Asp Glu Ala Glu Pro Val Gly Ala Leu Leu Leu Glu Arg Cys	
50 55 60	
aga gtc gtc cgg gaa gag ccc ggc acc ttc tcc atc agc ttc att gag	240
Arg Val Val Arg Glu Glu Pro Gly Thr Phe Ser Ile Ser Phe Ile Glu	
65 70 75 80	
gac cct gag agg aag tat cac ttt gag tgc agc agc gag gag cag tgt	288
Asp Pro Glu Arg Lys Tyr His Phe Glu Cys Ser Ser Glu Glu Gln Cys	
85 90 95	
cag gag tgg atg gag gct ctg cgt cgg ggc caa	321
Gln Glu Trp Met Glu Ala Leu Arg Arg Gly Gln	
100 105	

<210> 2706

<211> 285

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 118..285

<400> 2706

aggaagtaag cgcgaaagtg cttcccttaa gcttctgaag gttggctgca gtwccggcta	60
cctgtgtagt ccgagtttcc acagccaggt ctgtagttac tgtggaatca ataagcc	117
atg gca tct aag aaa ttt gct gtt aaa tgt ggg aat ttt gct gtc ctc	165
Met Ala Ser Lys Lys Phe Ala Val Lys Cys Gly Asn Phe Ala Val Leu	
1 5 10 15	
gtg gat ctt cat atc ttg cca caa ggt tca aac aaa gat aca agc tgg	213
Val Asp Leu His Ile Leu Pro Gln Gly Ser Asn Lys Asp Thr Ser Trp	
20 25 30	
ttt tct gaa cag aag aaa gag gaa gtc tgt kta ctg tta aaa gaa acc	261
Phe Ser Glu Gln Lys Lys Glu Glu Val Cys Xaa Leu Leu Lys Glu Thr	
35 40 45	
att gat tca aga gtt cag gag acc	285
Ile Asp Ser Arg Val Gln Glu Thr	
50 55	

<210> 2707

<211> 281

<212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 11..280

<400> 2707  
 atcagattcc atg gac cag ccc agg aac ccc tgt gag aac gag cct ctg 49  
           Met Asp Gln Pro Arg Asn Pro Cys Glu Asn Glu Pro Leu  
           1                  5                  10  
 act cca ggt tat cat gga ttc cca gcg cgg gac agc cag ggt aac cag 97  
 Thr Pro Gly Tyr His Gly Phe Pro Ala Arg Asp Ser Gln Gly Asn Gln  
           15                  20                  25  
 gag ccg aca aca act cct gac gca atg gtt cag cct ttt act acc atc 145  
 Glu Pro Thr Thr Thr Pro Asp Ala Met Val Gln Pro Phe Thr Thr Ile  
           30                  35                  40                  45  
 cca ttt cca cca cct ccg cag aat gga att ccc aca gag tat ggg gtg 193  
 Pro Phe Pro Pro Pro Pro Gln Asn Gly Ile Pro Thr Glu Tyr Gly Val  
                           50                  55                  60  
 cca cac act caa gac tat gcc ggc cag acc ggt gag cat aac ctg aca 241  
 Pro His Thr Gln Asp Tyr Ala Gly Gln Thr Gly Glu His Asn Leu Thr  
                   65                  70                  75  
 ctc tac gga agt acg caa gcc cac ggg gag cag agc agc g 281  
 Leu Tyr Gly Ser Thr Gln Ala His Gly Glu Gln Ser Ser  
           80                  85                  90

<210> 2708  
 <211> 364  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 35..364

<400> 2708  
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                           Met Ala Trp Arg Gly Trp Ala  
                           1                  5  
 cag aga ggc tgg ggc tgc ggc cag gcg tgg ggt gcg tcg gtg ggc ggc 103  
 Gln Arg Gly Trp Gly Cys Gly Gln Ala Trp Gly Ala Ser Val Gly Gly  
           10                  15                  20  
 cgc agc tgc gag gag ctc act gcg gtc cta acc ccg ccg cag ctc ctc 151  
 Arg Ser Cys Glu Glu Leu Thr Ala Val Leu Thr Pro Pro Gln Leu Leu  
           25                  30                  35  
 gga cgc agg ttt aac ttc ttt att caa caa aaa tgc gga ttc aga aaa 199  
 Gly Arg Arg Phe Asn Phe Phe Ile Gln Gln Lys Cys Gly Phe Arg Lys  
           40                  45                  50                  55  
 gca ccc agg aag gtt gaa cct cga aga tca gac cca ggg aca agt ggt 247  
 Ala Pro Arg Lys Val Glu Pro Arg Arg Ser Asp Pro Gly Thr Ser Gly  
                   60                  65                  70

gaa gca tac aag aga agt gct ttg att cct cct gtg gaa gaa aca gtc	295
Glu Ala Tyr Lys Arg Ser Ala Leu Ile Pro Pro Val Glu Glu Thr Val	
75 80 85	
ttt tat cct tct ccc tat cct ata agg agt ctc ata aaa cct tta ttt	343
Phe Tyr Pro Ser Pro Tyr Pro Ile Arg Ser Leu Ile Lys Pro Leu Phe	
90 95 100	
ttt act gtt ggg ttt aca ggc	364
Phe Thr Val Gly Phe Thr Gly	
105 110	

<210> 2709  
 <211> 317  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 99..317

<400> 2709	
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ccagcagctg gageggcagt gagagccctg ccgaaaac atg gaa agg atg agt gac	116
Met Glu Arg Met Ser Asp	
1 5	
tct gca gat aag cca att gac aat gat gca gaa ggg gtc tgg agc ccc	164
Ser Ala Asp Lys Pro Ile Asp Asn Asp Ala Glu Gly Val Trp Ser Pro	
10 15 20	
gac atc gag caa agc ttt cag gag gcc ctg gct atc tat cca cca tgt	212
Asp Ile Glu Gln Ser Phe Gln Glu Ala Leu Ala Ile Tyr Pro Pro Cys	
25 30 35	
ggg agg agg aaa atc atc tta tca gac gaa ggc aaa atg tat ggt agg	260
Gly Arg Arg Lys Ile Ile Leu Ser Asp Glu Gly Lys Met Tyr Gly Arg	
40 45 50	
aat gaa ttg ata gcc aga tac atc aaa ctc agg aca ggc aag acg agg	308
Asn Glu Leu Ile Ala Arg Tyr Ile Lys Leu Arg Thr Gly Lys Thr Arg	
55 60 65 70	
acc aga gcc	317
Thr Arg Ala	

<210> 2710  
 <211> 215  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 24..215

<400> 2710	
cagagcagag caccaaactg aag atg tst cac aga gac agt rac cac cag ctt	53
Met Xaa His Arg Asp Ser Xaa His Gln Leu	
1 5 10	

cag ctt ttg gac act aaa ttt aaa ggt aca gtt gag gaa ctc agt aac 101  
 Gln Leu Leu Asp Thr Lys Phe Lys Gly Thr Val Glu Glu Leu Ser Asn  
                   15                  20                  25  
 cag ata tta tct gca cgg agt tgg ttg caa cag gaa caa gaa cgg ata 149  
 Gln Ile Leu Ser Ala Arg Ser Trp Leu Gln Gln Glu Gln Glu Arg Ile  
                   30                  35                  40  
 gaa aaa gag ctt tta cag aaa att gat cag ctt tcc ttg att gtt aag 197  
 Glu Lys Glu Leu Leu Gln Lys Ile Asp Gln Leu Ser Leu Ile Val Lys  
                   45                  50                  55  
 gaa aac agt gga gcc agt 215  
 Glu Asn Ser Gly Ala Ser  
                   60

<210> 2711  
 <211> 365  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 164..364

<400> 2711  
 agcgctgtaa gaagtacctc taggcctggg aggcattgag aaaaaggaag tgggtcctgt 60  
 tctggttcctt gcgactatag tcacctcccg aggcaaatga ccactgtcct gagaggacgt 120  
 ggggtgagggg cagatttctg cccctttgtc cgaagagcca aaa atg acc aag tcc 175  
   Met Thr Lys Ser  
   1  
 ctg gaa tca gtg tca ttc aag gac gtc act gta gac ttc agt agg gat 223  
 Leu Glu Ser Val Ser Phe Lys Asp Val Thr Val Asp Phe Ser Arg Asp  
                   5                  10                  15                  20  
 gag tgg caa caa tta gac ctt gct cag aaa agc ctg tac aga gaa gtg 271  
 Glu Trp Gln Gln Leu Asp Leu Ala Gln Lys Ser Leu Tyr Arg Glu Val  
                   25                  30                  35  
 atg ctg gaa aac tat ttc aac ttg atc tca gtg gga tgt caa gtt ccc 319  
 Met Leu Glu Asn Tyr Phe Asn Leu Ile Ser Val Gly Cys Gln Val Pro  
                   40                  45                  50  
 aaa cca gaa gtc atc ttc agc ttg gaa caa gaa gag cca tgt atg t 365  
 Lys Pro Glu Val Ile Phe Ser Leu Glu Gln Glu Glu Pro Cys Met  
                   55                  60                  65

<210> 2712  
 <211> 414  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 115..414

<400> 2712  
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gagacaagtc attacgtttt catttctcac aactgggctg agcacaactg aacc atg 117  
Met  
1  
ggg gaa cac agt cca gac aac aac atc atc tac ttt gag gca gag gaa 165  
Gly Glu His Ser Pro Asp Asn Asn Ile Ile Tyr Phe Glu Ala Glu Glu  
5 10 15  
gat gag ctg acc ccc gat gat aaa atg ctc agg ttt gtg gat aaa aac 213  
Asp Glu Leu Thr Pro Asp Asp Lys Met Leu Arg Phe Val Asp Lys Asn  
20 25 30  
gga ctg gtg cct tcc tca tct gga act gtt tat gat agg acc act gtt 261  
Gly Leu Val Pro Ser Ser Ser Gly Thr Val Tyr Asp Arg Thr Thr Val  
35 40 45  
ctt att gag cag gac cct ggc act ttg gag gat gaa gat gac gac gga 309  
Leu Ile Glu Gln Asp Pro Gly Thr Leu Glu Asp Glu Asp Asp Asp Gly  
50 55 60 65  
cag tgc gga gaa cac ttg cct ttt cta gta ggg ggt gaa gag ggc ttt 357  
Gln Cys Gly Glu His Leu Pro Phe Leu Val Gly Gly Glu Glu Gly Phe  
70 75 80  
cac ctg ata gat cat gaa gca atg tcc cag ggt tat gtg cag cac att 405  
His Leu Ile Asp His Glu Ala Met Ser Gln Gly Tyr Val Gln His Ile  
85 90 95  
atc tca cca 414  
Ile Ser Pro  
100

<210> 2713  
<211> 280  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 93..278

<400> 2713  
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gtggcgggggt tctttcttgg ggcgacctgg gc atg gag gga ttt ttg aaa tca 113  
Met Glu Gly Phe Leu Lys Ser  
1 5  
gat gag agg cag aga ttg gcc aaa gaa aga cga gaa gaa aga gaa aaa 161  
Asp Glu Arg Gln Arg Leu Ala Lys Glu Arg Arg Glu Glu Arg Glu Lys  
10 15 20  
tgt ctg gct gct cgg gag caa cag atc ctg gag aaa cag aaa aga gcc 209  
Cys Leu Ala Ala Arg Glu Gln Gln Ile Leu Glu Lys Gln Lys Arg Ala  
25 30 35  
agg ctg cag tac gaa aag caa atg gag gag cga tgg cga aaa ctg gaa 257  
Arg Leu Gln Tyr Glu Lys Gln Met Glu Glu Arg Trp Arg Lys Leu Glu  
40 45 50 55  
gag cag cgg cac ghs agg acc ct 280  
Glu Gln Arg His Xaa Arg Thr  
60

<210> 2714

<211> 171  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 5..169

<400> 2714  
 gagt atg gak kac cag ggc acc agg cat gga nkw aca atg aaa acc aat 49  
 Met Xaa Xaa Gln Gly Thr Arg His Gly Xaa Thr Met Lys Thr Asn  
 1 5 10 15  
 acc tat gag agg gga aca tat tac ttc ttt gac tgt ctt aac tgg agg 97  
 Thr Tyr Glu Arg Gly Thr Tyr Tyr Phe Phe Asp Cys Leu Asn Trp Arg  
 20 25 30  
 aaa gta gct aag gag ttc cat ctg gaa tat gac aaa tta gaa gaa cgg 145  
 Lys Val Ala Lys Glu Phe His Leu Glu Tyr Asp Lys Leu Glu Glu Arg  
 35 40 45  
 cct cac ctg cca tcc acc ttc aac ct 171  
 Pro His Leu Pro Ser Thr Phe Asn  
 50 55

<210> 2715  
 <211> 268  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 26..268

<400> 2715  
 aaaaattcct gtgggccgct tgaat atg act gtt cag tta gtt agt aat ttc 52  
 Met Thr Val Gln Leu Val Ser Asn Phe  
 1 5  
 tct agg gat gca gaa cca ttt cta gtc agg act ctg gta gaa gag atc 100  
 Ser Arg Asp Ala Glu Pro Phe Leu Val Arg Thr Leu Val Glu Glu Ile  
 10 15 20 25  
 act gaa gag caa tat tac atg atg cgg aga tat gaa agc tca gcc tca 148  
 Thr Glu Glu Gln Tyr Tyr Met Met Arg Arg Tyr Glu Ser Ser Ala Ser  
 30 35 40  
 cat ccc cca cct cgc cct ccg aaa cac ccc tca gta gag gaa aca aag 196  
 His Pro Pro Pro Arg Pro Pro Lys His Pro Ser Val Glu Glu Thr Lys  
 45 50 55  
 tta acc ctg cta acc tta gca gaa gaa agg acg gta gac ctg ccc aag 244  
 Leu Thr Leu Leu Thr Leu Ala Glu Glu Arg Thr Val Asp Leu Pro Lys  
 60 65 70  
 tct ccc rrg cgt cat cac gca gac 268  
 Ser Pro Xaa Arg His His Ala Asp  
 75 80

<210> 2716

<211> 320  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 135..320

<400> 2716  
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 ttgttattgt tgttggttatt ttgtttttt tgaggcaggg tcttgctttg ttgccagggc 120  
 tggagtacag tgggt atg atc agg act cat agc agc ctc aac ctc ccc agg 170  
                   Met Ile Arg Thr His Ser Ser Leu Asn Leu Pro Arg  
                   1                  5                  10  
 ctc aaa caa tcc tct cac ctc agc ctc cca tgg cag ctg gga gct aca 218  
 Leu Lys Gln Ser Ser His Leu Ser Leu Pro Trp Gln Leu Gly Ala Thr  
                   15                  20                  25  
 ggt tca tgc cac cac gcc cag cta att ttt gta ttt ttt gta aag atg 266  
 Gly Ser Cys His His Ala Gln Leu Ile Phe Val Phe Phe Val Lys Met  
                   30                  35                  40  
 agg ttt tgc ata tgc ccc agg cag gca gga ctc aag ctc ctg gac tca 314  
 Arg Phe Cys Ile Ser Pro Arg Gln Ala Gly Leu Lys Leu Leu Asp Ser  
 45                  50                  55                  60  
 agt gat 320  
 Ser Asp

<210> 2717  
 <211> 416  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 238..414

<400> 2717  
 caggccacat gggcacatgc tattataatt attttgtgcg atggatgagt tacagaactg 60  
 gagccctaag acctgagttc tagtttcagc tctgccagtt gctggctgat tgaaactgaa 120  
 caagccacct gccttccttg agactgtctc ttctcctgtg aaattagggc attagaatac 180  
 atgaagaccc ctttatgtcc ttaataacct gtaagttaa gaacctaggg aatctcc 237  
 atg ctg gtg gct gcg gtt ata tcc cct tat cct caa ctc gtg aag aaa 285  
 Met Leu Val Ala Ala Val Ile Ser Pro Tyr Pro Gln Leu Val Lys Lys  
 1                  5                  10                  15  
 gag tca aaa atg gca gca ggg ttg tgc caa ctg ctc tcc tca gca gct 333  
 Glu Ser Lys Met Ala Ala Gly Leu Cys Gln Leu Leu Ser Ser Ala Ala  
                   20                  25                  30  
 atc ata agg gaa ttg cct ttg tca ttt tcc cca gcc atc acc aca ctc 381  
 Ile Ile Arg Glu Leu Pro Leu Ser Phe Ser Pro Ala Ile Thr Thr Leu  
                   35                  40                  45  
 cca cac ggc cac cat cac cta aac cat ctg gca gt 416  
 Pro His Gly His His His Leu Asn His Leu Ala  
 50                  55

<210> 2718  
 <211> 288  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 99..287

<400> 2718  
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 tagaatctgc ttttaggaagt atagaacaga aagagggga atg aaa atg gaa ggt acg 116  
 Met Lys Met Glu Gly Thr  
 1 5  
 tcc ccg gct cca ccc cca gct gca gga aaa tac ccc agc tgc agt gaa 164  
 Ser Pro Ala Pro Pro Pro Ala Ala Gly Lys Tyr Pro Ser Cys Ser Glu  
 10 15 20  
 ctt att aaa act gca gat gga gga cag att tca ctg gac tgg ttt gat 212  
 Leu Ile Lys Thr Ala Asp Gly Gly Gln Ile Ser Leu Asp Trp Phe Asp  
 25 30 35  
 aat gat aac agt acg tgt tat atg gat gcc agc acc aga cct act atc 260  
 Asn Asp Asn Ser Thr Cys Tyr Met Asp Ala Ser Thr Arg Pro Thr Ile  
 40 45 50  
 tta ttg ttg cct ggc ctc acg gga aca a 288  
 Leu Leu Leu Pro Gly Leu Thr Gly Thr  
 55 60

<210> 2719  
 <211> 309  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 67..309

<400> 2719  
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 gcttaa atg att ttt aaa ggg ccg cga tgg gcc tct tgg aac att ggt 108  
 Met Ile Phe Lys Gly Pro Arg Trp Ala Ser Trp Asn Ile Gly  
 1 5 10  
 gtg ttc atc tgc att cga tgt gct gga atc cac agg aat ctg ggg gtg 156  
 Val Phe Ile Cys Ile Arg Cys Ala Gly Ile His Arg Asn Leu Gly Val  
 15 20 25 30  
 cac ata tcc agg gta aag tca gtt aac ctc gac cag tgg act caa gaa 204  
 His Ile Ser Arg Val Lys Ser Val Asn Leu Asp Gln Trp Thr Gln Glu  
 35 40 45  
 cag att cag tgc atg caa gag atg gga aat gga aag gca aac cga ctt 252  
 Gln Ile Gln Cys Met Gln Glu Met Gly Asn Gly Lys Ala Asn Arg Leu  
 50 55 60  
 tat gaa gcc tat ctt cct gag acc ttt cgg cga cct cag ata gac cca 300

Tyr Glu Ala Tyr Leu Pro Glu Thr Phe Arg Arg Pro Gln Ile Asp Pro  
65 70 75  
gct gtt gaa  
Ala Val Glu  
80

309

<210> 2720  
<211> 213  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 47..211

<400> 2720  
agcttcctca acttcagagc catttgctac aatctaggac agcccc atg ttc aat 55  
Met Phe Asn  
1  
gat gct ttc ctt ttc cat caa cag ggg caa atc gaa gta gag agc gaa 103  
Asp Ala Phe Leu Phe His Gln Gln Gly Gln Ile Glu Val Glu Ser Glu  
5 10 15  
acc atc ttc aag tta gca gcg ttt att tta cag gaa gcc aag gga gat 151  
Thr Ile Phe Lys Leu Ala Ala Phe Ile Leu Gln Glu Ala Lys Gly Asp  
20 25 30 35  
tat acc agt gat gaa aat gcc agg aaa gat tta aag aca tta cca gcc 199  
Tyr Thr Ser Asp Glu Asn Ala Arg Lys Asp Leu Lys Thr Leu Pro Ala  
40 45 50  
ttt cca acc aac cg 213  
Phe Pro Thr Asn  
55

<210> 2721  
<211> 176  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 7..174

<400> 2721  
ggagaa atg tct att cag agc ctt tgc cca ttt aaa aag tta ttt ttt 48  
Met Ser Ile Gln Ser Leu Cys Pro Phe Lys Lys Leu Phe Phe  
1 5 10  
att att att gag ttc ctt ata gtt tct aga tat aag ccc ccc tat cat 96  
Ile Ile Ile Glu Phe Leu Ile Val Ser Arg Tyr Lys Pro Pro Tyr His  
15 20 25 30  
aca tgc tac aga agt ttt tac cca ttc tgt gga ata tat ata ttt tta 144  
Thr Cys Tyr Arg Ser Phe Tyr Pro Phe Cys Gly Ile Tyr Ile Phe Leu  
35 40 45  
ttt ctt tgc ata ctc ttt ctg ccc cac tcc ac 176

Phe Leu Cys Ile Leu Phe Leu Pro His Ser  
50 55

<210> 2722  
<211> 337  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 104..337

<400> 2722  
attccccctcc acttcttggc tgagccgcct gmtcctcttg gaaacacggt gagcctcccc 60  
gctggagagg gagccagaac agggaagaac ggattcacac agg atg gct tgc aga 115  
Met Ala Cys Arg  
1  
aga cgc tat ttc gtc gag ggc gag gcc ccc agc agt gag act ggc aca 163  
Arg Arg Tyr Phe Val Glu Gly Glu Ala Pro Ser Ser Glu Thr Gly Thr  
5 10 15 20  
tcc ctg gac agc ccc tca gcc tac ccc cag ggc ccc ttg gtg ccc ggt 211  
Ser Leu Asp Ser Pro Ser Ala Tyr Pro Gln Gly Pro Leu Val Pro Gly  
25 30 35  
tcc agc ctg agc ccg gat cac tac gag cac acg tca gtg gag cct atg 259  
Ser Ser Leu Ser Pro Asp His Tyr Glu His Thr Ser Val Glu Pro Met  
40 45 50  
ggc tgt act cgg ggm cgc cgg ggc aac agc agc gca cgc gra ggc cca 307  
Gly Cys Thr Arg Gly Arg Arg Gly Asn Ser Ser Ala Arg Xaa Gly Pro  
55 60 65  
agc tgc agc act cga cct cca tcc tgc gca 337  
Ser Cys Ser Thr Arg Pro Pro Ser Cys Ala  
70 75

<210> 2723  
<211> 356  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 191..355

<400> 2723  
cgcgwggttc atctccgaca tccggaactg taagagcaaa gaggcggaaa ttaagagaat 60  
caacaaggaa ctggccaaca tccgctccaa gttcaaagga gacaaagcct tggatggcta 120  
cagtaagaaa aaatatgtgt gtaaactgct tttcatcttc ctgcttgccc atgacattga 180  
ctttgggcac atg gag gct gtg aat ctg ttg agt tcc aat aaa tac aca 229  
Met Glu Ala Val Asn Leu Leu Ser Ser Asn Lys Tyr Thr  
1 5 10  
gag aag caa ata ggt tac ctg ttc att tct gtg ctg gtg aac tcg aac 277  
Glu Lys Gln Ile Gly Tyr Leu Phe Ile Ser Val Leu Val Asn Ser Asn  
15 20 25

tcg gag ctg atc cgc ctc atc aac aac gcc atc aag aat gac ctg gcc	325
Ser Glu Leu Ile Arg Leu Ile Asn Asn Ala Ile Lys Asn Asp Leu Ala	
30 35 40 45	
agc cgc aac ccc acc ttc atg tgc ctg gcc g	356
Ser Arg Asn Pro Thr Phe Met Cys Leu Ala	
50 55	

<210> 2724  
 <211> 159  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 7..159

<400> 2724	
tttgca atg gtt ttg aat gaa gta gac aaa gac atg gag agt gtg att	48
Met Val Leu Asn Glu Val Asp Lys Asp Met Glu Ser Val Ile	
1 5 10	
ccc aag aca gac tgc agg tta cgg cct gac atc aga gcc atg gaa aat	96
Pro Lys Thr Asp Cys Arg Leu Arg Pro Asp Ile Arg Ala Met Glu Asn	
15 20 25 30	
gga gag ata gat caa gct agt gaa gaa aaa aaa cga ctt gag gaa aaa	144
Gly Glu Ile Asp Gln Ala Ser Glu Glu Lys Lys Arg Leu Glu Glu Lys	
35 40 45	
caa aga gca gcc cgc	159
Gln Arg Ala Ala Arg	
50	

<210> 2725  
 <211> 382  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 22..381

<400> 2725	
cctttttttt tctgccgggt a atg gct gct tcc aag acc cag ggg gct gtc	51
Met Ala Ala Ser Lys Thr Gln Gly Ala Val	
1 5 10	
gcc cga atg cag gaa gac cgt gat ggg agc tgc agc aca gtc ggg ggt	99
Ala Arg Met Gln Glu Asp Arg Asp Gly Ser Cys Ser Thr Val Gly Gly	
15 20 25	
gta ggt tat ggg gac agt aag gat tgt atc ctg gag ccg ctt tcc ctg	147
Val Gly Tyr Gly Asp Ser Lys Asp Cys Ile Leu Glu Pro Leu Ser Leu	
30 35 40	
cca gaa agt cca ggt ggc acc acc act tta gaa ggt tct cca tct gtg	195
Pro Glu Ser Pro Gly Gly Thr Thr Thr Leu Glu Gly Ser Pro Ser Val	
45 50 55	

001220" 6652560

cct tgt att ttc tgt gaa gaa cat ttt cct gtg gct gaa caa gac aaa	243
Pro Cys Ile Phe Cys Glu Glu His Phe Pro Val Ala Glu Gln Asp Lys	
60 65 70	
ctt ctg aag cac atg att att gag cat aag att gtc ata gct gat gtc	291
Leu Leu Lys His Met Ile Ile Glu His Lys Ile Val Ile Ala Asp Val	
75 80 85 90	
aag ttg gtt gct gat ttc caa agg tac att tta tat tgg agg aaa agg	339
Lys Leu Val Ala Asp Phe Gln Arg Tyr Ile Leu Tyr Trp Arg Lys Arg	
95 100 105	
ttc act gaa cag ccc atc aca gat ttt tgt agt gta ata aga a	382
Phe Thr Glu Gln Pro Ile Thr Asp Phe Cys Ser Val Ile Arg	
110 115 120	

<210> 2726  
 <211> 458  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 271..456

<400> 2726	
agctgagggga cgcagctaga ccttggcggg acggggcttt cgccggggcc caggcccagg	60
gaccaggcgg aggcgtcgcg ggagcctttg gggcaccaca gagatgcggg tttgcctgca	120
atgagatttc attctctaca tttaaaggac atcctttctg agctgctgtg aataaatttg	180
gaatgggtact gtatatatttc atctaattgga gaactagctg tactttgaat aaggattgct	240
gcactggacg actttagaac atccctcaca atg tcg tca acc cgg agc cag aac	294
Met Ser Ser Thr Arg Ser Gln Asn	
1 5	
ccc cac ggc ctg aag cag att ggc ctg gac cag atc tgg gac gac ctc	342
Pro His Gly Leu Lys Gln Ile Gly Leu Asp Gln Ile Trp Asp Asp Leu	
10 15 20	
aga gcc ggt atc cag cag gtg tac aca cgg cag aca tgg cca agt cca	390
Arg Ala Gly Ile Gln Gln Val Tyr Thr Arg Gln Thr Trp Pro Ser Pro	
25 30 35 40	
gat ata tgg agc tct aca ctc atg ttt ata act act gta cta gtg ttc	438
Asp Ile Trp Ser Ser Thr Leu Met Phe Ile Thr Thr Val Leu Val Phe	
45 50 55	
acc agt caa acc aag cac ga	458
Thr Ser Gln Thr Lys His	
60	

<210> 2727  
 <211> 298  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 28..297

004220" 6567560



004220"666E7560

<400> 2727

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atctaccttt gcaaattccg agtgtcc atg gat gga gaa tgg ctc tgc ctg cga      54
                        Met Asp Gly Glu Trp Leu Cys Leu Arg
                        1                               5
gag ctg gat gac atc tca ctt aca cct gac cca gag cct acc cat gaa      102
Glu Leu Asp Asp Ile Ser Leu Thr Pro Asp Pro Glu Pro Thr His Glu
10                               15                               20                               25
gat cct aat tat ctc atg gct aat gaa cgc atg aac ctc atg aac atg      150
Asp Pro Asn Tyr Leu Met Ala Asn Glu Arg Met Asn Leu Met Asn Met
30                               35                               40
gcc aag ctg agt atc aag ggc ttg att gaa tca gct ctg aac ctg ggg      198
Ala Lys Leu Ser Ile Lys Gly Leu Ile Glu Ser Ala Leu Asn Leu Gly
45                               50                               55
agg act ctt gac tct gac tat gca cct ctc cag caa ttc ttt gtg gtg      246
Arg Thr Leu Asp Ser Asp Tyr Ala Pro Leu Gln Gln Phe Phe Val Val
60                               65                               70
atg gag cac tgt ctg aaa cgt ggc ttg aaa gct aaa aaa act ttt ctc      294
Met Glu His Cys Leu Lys Arg Gly Leu Lys Ala Lys Lys Thr Phe Leu
75                               80                               85
gaa c
Glu
90

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<210> 2728

<211> 259

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 18..257

<400> 2728

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acagaactca tttaagg atg aca agg cat cta cga tta aca gca gag ggt      50
                        Met Thr Arg His Leu Arg Leu Thr Ala Glu Gly
                        1                               5                               10
gaa agg gaa gag aaa act gag gaa gca tct gac atc aca ggg aga act      98
Glu Arg Glu Glu Lys Thr Glu Glu Ala Ser Asp Ile Thr Gly Arg Thr
15                               20                               25
gag aag caa cag tgg gga agg act gat cag act ccc agg ctg cct gca      146
Glu Lys Gln Gln Trp Gly Arg Thr Asp Gln Thr Pro Arg Leu Pro Ala
30                               35                               40
cct aag gag cag gga agg gca gca gac gcc ctc cta aag gca gtg gca      194
Pro Lys Glu Gln Gly Arg Ala Ala Asp Ala Leu Leu Lys Ala Val Ala
45                               50                               55
gcc agc agt gtc gct gag aag gcc gtg gag gca gct cga atg gcc aaa      242
Ala Ser Ser Val Ala Glu Lys Ala Val Glu Ala Ala Arg Met Ala Lys
60                               65                               70                               75
ctg ata gcc cag aac ct
Leu Ile Ala Gln Asn
80

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<210> 2729

<211> 420  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 173..418

<400> 2729  
 agcgttgttg gcccggttgc tctggagccg ggtctcgggt ctggtggctg ccggccctgc 60  
 ggcattctgc catggggagc acggagagca gcgagggccg caggtgtcct tcggagtgga 120  
 cgaggaggag cgggtccggg tgctgcaggg tgcctggctg tctgaaaacg tg atg aac 178  
 Met Asn  
 1  
 cgc atg aag gag ccc agc tct cca ccc cct gct ccc aca tct tct acc 226  
 Arg Met Lys Glu Pro Ser Ser Pro Pro Pro Ala Pro Thr Ser Ser Thr  
 5 10 15  
 ttt ggc ctt caa gat ggc aac ttg aga gcc cct cac aaa gaa tcc aca 274  
 Phe Gly Leu Gln Asp Gly Asn Leu Arg Ala Pro His Lys Glu Ser Thr  
 20 25 30  
 ctg ccc agg tcg ggg agc agt ggt ggc cag cag ccc tca ggg atg aag 322  
 Leu Pro Arg Ser Gly Ser Ser Gly Gly Gln Gln Pro Ser Gly Met Lys  
 35 40 45 50  
 gag ggt gtc aag agg tat gaa cag gag cat tct gct atc cag gat aag 370  
 Glu Gly Val Lys Arg Tyr Glu Gln Glu His Ser Ala Ile Gln Asp Lys  
 55 60 65  
 ctc ttc cag gtg gca aag agg gaa aga gag gct gcc acc aag cac tcc 418  
 Leu Phe Gln Val Ala Lys Arg Glu Arg Glu Ala Ala Thr Lys His Ser  
 70 75 80  
 aa 420

<210> 2730  
 <211> 217  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 17..217

<400> 2730  
 actttatttt agtaaa atg ccc agg agt cct gga agc tac gcg gac ttg cag 52  
 Met Pro Arg Ser Pro Gly Ser Tyr Ala Asp Leu Gln  
 1 5 10  
 agg ttt tat ttt ttg gcc tta gaa tct gca gaa att agg agg cac cga 100  
 Arg Phe Tyr Phe Leu Ala Leu Glu Ser Ala Glu Ile Arg Arg His Arg  
 15 20 25  
 gcc cag cgc asa gcc tcg gac ccg gat tgc gtt tgc ctt agc gga tat 148  
 Ala Gln Arg Xaa Ala Ser Asp Pro Asp Cys Val Cys Leu Ser Gly Tyr  
 30 35 40  
 gtt tat aca gat gaa tat aaa atg ttt ttk tct ttg ggc ttt ttg ctt 196  
 Val Tyr Thr Asp Glu Tyr Lys Met Phe Xaa Ser Leu Gly Phe Leu Leu

45                      50                      55                      60                      217  
 ctt ttt ncc ccc cct tct cac  
 Leu Phe Xaa Pro Pro Ser His  
                     65

<210> 2731  
 <211> 439  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 64..438

<400> 2731  
 gaggttcttc agccacttca gcagcgattc ttaagagtga taaaccaaga aaacttccag                      60  
 cag atg tgt cag caa gag gaa gtc aag cag gaa atc act gcc aca cta                      108  
     Met Cys Gln Gln Glu Val Lys Gln Glu Ile Thr Ala Thr Leu  
       1                      5                      10                      15  
 gag gcc ctg tgt ggc att gct gag gct acc cag att gac aac gta gca                      156  
 Glu Ala Leu Cys Gly Ile Ala Glu Ala Thr Gln Ile Asp Asn Val Ala  
                     20                      25                      30  
 atc ctg ttt aat ttt tta atg gac ttc ctt acc aat tgc att gga ttg                      204  
 Ile Leu Phe Asn Phe Leu Met Asp Phe Leu Thr Asn Cys Ile Gly Leu  
                     35                      40                      45  
 atg gaa gtt tac aag aat acc cca gag act gtc aat ctc att ata gaa                      252  
 Met Glu Val Tyr Lys Asn Thr Pro Glu Thr Val Asn Leu Ile Ile Glu  
                     50                      55                      60  
 gtt ttt gtt gaa gtt gca cat aaa cag ata tgc tat ctt gga gag tcc                      300  
 Val Phe Val Glu Val Ala His Lys Gln Ile Cys Tyr Leu Gly Glu Ser  
                     65                      70                      75  
 aaa gct atg aac tta tat gaa gcc tgc ctt act ttg ttg caa gtg tat                      348  
 Lys Ala Met Asn Leu Tyr Glu Ala Cys Leu Thr Leu Leu Gln Val Tyr  
                     80                      85                      90                      95  
 tct aag aat aat tta ggg cgg caa aga ata gat gtt aca gca gaa gaa                      396  
 Ser Lys Asn Asn Leu Gly Arg Gln Arg Ile Asp Val Thr Ala Glu Glu  
                     100                      105                      110  
 gag caa tac caa gac ctg ctt ctc att atg gaa ctt ctt act a                      439  
 Glu Gln Tyr Gln Asp Leu Leu Leu Ile Met Glu Leu Leu Thr  
                     115                      120                      125

<210> 2732  
 <211> 392  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 200..391

<400> 2732  
 gtttgatgta tgtatatacc cttgacataa tcaaaatagt gaacatatct atcanhccca                      60

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aaagtttccc ctgccccttt gtaatccttc cccatcctct atcctgaggc aaccattgat 120
ctgcttttat tatttttaaa agtttagcgta ttttcttata tgtattgcat atgggatttt 180
tctagaaggc cacgtgcat atg cac cct ccc ctt cca tta ccc cag tat ccg 232
          Met His Pro Pro Leu Pro Leu Pro Gln Tyr Pro
          1          5          10
cca tca agt agt aac akt gtt gta aca gaa aga atc cca tta agt cct 280
Pro Ser Ser Ser Asn Xaa Val Val Thr Glu Arg Ile Pro Leu Ser Pro
          15          20          25
agt tct ggt agc ccg gta caa att tta gat ttt ccc cca aaa atg aaa 328
Ser Ser Gly Ser Pro Val Gln Ile Leu Asp Phe Pro Pro Lys Met Lys
          30          35          40
aar aat tan tta aaa aat tta gat ttg aaa tgc tta gaa aac aat cat 376
Lys Asn Xaa Leu Lys Asn Leu Asp Leu Lys Cys Leu Glu Asn Asn His
          45          50          55
tta ttt ttt tat gtc a
Leu Phe Phe Tyr Val 392
60

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<210> 2733  
 <211> 212  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 52..210

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<400> 2733
catggacgcc cagacacccc tccccgact aactgctcaa aggcctttga g atg aag 57
          Met Lys
          1
ccc tcc cat gtt tct gtc tct cct gcc ccc agg cag aaa ggg tgg gca 105
Pro Ser His Val Ser Val Ser Pro Ala Pro Arg Gln Lys Gly Trp Ala
          5          10          15
cag agt tat gga agc ggg tgg tgt ggc ttg ccc agg agg cca cag ttg 153
Gln Ser Tyr Gly Ser Gly Trp Cys Gly Leu Pro Arg Arg Pro Gln Leu
          20          25          30
ggg gcg tgg gca gcc atg cta skt gcc ggg cct gtc acc tct ttg tcc 201
Gly Ala Trp Ala Ala Met Leu Xaa Ala Gly Pro Val Thr Ser Leu Ser
          35          40          45          50
ctg cta gaa tt
Leu Leu Glu 212

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<210> 2734  
 <211> 358  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 161..358

&lt;400&gt; 2734

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ccggabnsag gaagaagagg aggtggagca ggaattgctg agtcacagct ggggaagaga      60
gacaaaaaat ggccccacgg accattcaaa ctccacgacc tggcaccgtc tccaccccac      120
agatggctcc tctgggcaga acagcaaagt tgggaccgrr atg agc aaa tcc gcc      175
                               Met Ser Lys Ser Ala
                               1       5
tct ttt gcc ttt gag ttc ccc aag gac aga agt ggg att gag aca ttc      223
Ser Phe Ala Phe Glu Phe Pro Lys Asp Arg Ser Gly Ile Glu Thr Phe
                10                15                20
tca cct cct cct ccg cct cca aag tcg cgg cac ctt cta aaa atg aac      271
Ser Pro Pro Pro Pro Pro Pro Lys Ser Arg His Leu Leu Lys Met Asn
                25                30                35
aag agc agc tct gat ttg gaa aaa gtg agc cam vvw tct gca aga ggc      319
Lys Ser Ser Ser Asp Leu Glu Lys Val Ser Xaa Xaa Ser Ala Arg Gly
                40                45                50
ctc agc cca tcc tks ang ggt gtc cac gtc agc ttc acc      358
Leu Ser Pro Ser Xaa Xaa Gly Val His Val Ser Phe Thr
                55                60                65

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&lt;210&gt; 2735

&lt;211&gt; 271

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 85..270

&lt;400&gt; 2735

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ttcttccatg tgggtgtagg cctgttggtgta cacagaagac aagaattgag gttagggaac      60
ctccacctag atttcagagg atgt atg gga atg cct gaa tgt cca ggc aaa      111
                               Met Gly Met Pro Glu Cys Pro Gly Lys
                               1       5
agt ctg ttg cag ggg cag agc cct cag ggt aaa cct ctg cta ggg cag      159
Ser Leu Leu Gln Gly Gln Ser Pro Gln Gly Lys Pro Leu Leu Gly Gln
                10                15                20                25
tgt gga agg gaa atg tgg ggt tgg agc cct cag agt ccc cac tgg agc      207
Cys Gly Arg Glu Met Trp Gly Trp Ser Pro Gln Ser Pro His Trp Ser
                30                35                40
act gct tac tgg agt dgt gag aaa ggg cta cca ttc tcc aga ccc cag      255
Thr Ala Tyr Trp Ser Xaa Glu Lys Gly Leu Pro Phe Ser Arg Pro Gln
                45                50                55
aat tat aga ccg acc t      271
Asn Tyr Arg Pro Thr
                60

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&lt;210&gt; 2736

&lt;211&gt; 417

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

<222> 248..415

<400> 2736

tgtactacaa cttgtatcta ggacctagat tgccaaaccc aagctgaaaa aacatcctga 60  
agttcagttg tgcctcttct acagtcaggt agcctcttcc cagtgatttt tgtagtgata 120  
caacaggaaa tactaagtaa acacaaacta ttccttggtc tgctaagaaa tcaaaagaat 180  
atatgattat tcatgataat cttgggttgt agtgaattta aactagtttc ttgggcttcc 240  
agagcag atg atg gga gtg aaa ttt tgg gcc aca ttt tct agt att att 289  
Met Met Gly Val Lys Phe Trp Ala Thr Phe Ser Ser Ile Ile  
1 5 10  
ctt act tct aga ata gta tct tgc aca gta tgc ata agg agt cat cac 337  
Leu Thr Ser Arg Ile Val Ser Cys Thr Val Cys Ile Arg Ser His His  
15 20 25 30  
ttc tgg gga gct ttc ctg agt agc cta tac ctg cct tat ttt gga agt 385  
Phe Trp Gly Ala Phe Leu Ser Ser Leu Tyr Leu Pro Tyr Phe Gly Ser  
35 40 45  
ttc tgg tta ttc tcg gag aca cgt gat atg ct 417  
Phe Trp Leu Phe Ser Glu Thr Arg Asp Met  
50 55

<210> 2737

<211> 332

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 157..330

<400> 2737

acacagaccc gcaactgacct ggaaaagctt cgaggagcggc gacgggaagg cagcaggagg 60  
tgggtcgggg acccgaggcg cctcgtaacc ggccgggctg acgcggcccc gctacacaca 120  
aagcgcttca gctgcacagg gcgctatttt ccgaaa atg ccg cgt ctg gtc ggc 174  
Met Pro Arg Leu Val Gly  
1 5  
gcc caa aat ccc cac cga aaa gtc ccc cgt gct gcg cgc gga ggg aca 222  
Ala Gln Asn Pro His Arg Lys Val Pro Arg Ala Ala Arg Gly Gly Thr  
10 15 20  
cat ggt gtg cga gtg agt saa gct ccc agc atc cct ccc gga ccc ggc 270  
His Gly Val Arg Val Ser Xaa Ala Pro Ser Ile Pro Pro Gly Pro Gly  
25 30 35  
cct ctt cag ctc atc gcc cga gga ttt tcc gcc tct gcc ctc gtc ggc 318  
Pro Leu Gln Leu Ile Ala Arg Gly Phe Ser Ala Ser Ala Leu Val Gly  
40 45 50  
aga tcc tgc tcc at 332  
Arg Ser Cys Ser  
55

<210> 2738

<211> 251

<212> DNA

<213> Homo sapiens

<220>  
 <221> CDS  
 <222> 4..249

<400> 2738

aag atg ttg tta ttg tgg cga aat gtt ttc cca cgt tcc tta aag gaa	48
Met Leu Leu Leu Trp Arg Asn Val Phe Pro Arg Ser Leu Lys Glu	
1 5 10 15	
ttg gaa gct gag aag gcc cga ggc gat tct ttt acc tgg cag gta act	96
Leu Glu Ala Glu Lys Ala Arg Gly Asp Ser Phe Thr Trp Gln Val Thr	
20 25 30	
ttg gaa ggt cgt gct gga gct cta tgt gcc atg agg agc ttc gtt gca	144
Leu Glu Gly Arg Ala Gly Ala Leu Cys Ala Met Arg Ser Phe Val Ala	
35 40 45	
cat tgt cct gag cta cta act gaa gat gtg att cga aaa ttg atg acc	192
His Cys Pro Glu Leu Leu Thr Glu Asp Val Ile Arg Lys Leu Met Thr	
50 55 60	
cct att gaa tgt gcc atg act atg atg tca cac att cca tct gta atg	240
Pro Ile Glu Cys Ala Met Thr Met Met Ser His Ile Pro Ser Val Met	
65 70 75	
aaa gcc cca ca	251
Lys Ala Pro	
80	

<210> 2739  
 <211> 193  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 15..191

<400> 2739

acttctggga tgtg atg ccc aac cgc cat ctc tcc tgg cat ggg ggt ccc	50
Met Pro Asn Arg His Leu Ser Trp His Gly Gly Pro	
1 5 10	
tca gct ctc cct tcc tcc cca cag gta atg gac agc tca atg ccg ctg	98
Ser Ala Leu Pro Ser Ser Pro Gln Val Met Asp Ser Ser Met Pro Leu	
15 20 25	
att gga gag cat gtg gaa gag gac aga cag ctg atg gcc gac ctt gtt	146
Ile Gly Glu His Val Glu Glu Asp Arg Gln Leu Met Ala Asp Leu Val	
30 35 40	
gtc tcc aaa atg agc cag ctc ccg atg cca gga ggc aca gcg ccc tc	193
Val Ser Lys Met Ser Gln Leu Pro Met Pro Gly Gly Thr Ala Pro	
45 50 55	

<210> 2740  
 <211> 248  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 31..246

<400> 2740

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gcggggcccg ggtcacggca ctaagggggg atg ggg tgc aag cga gca agc gag      54
                               Met Gly Cys Lys Arg Ala Ser Glu
                               1           5
gtc tgc gga sgg gcc gtg gaa ggg ctc cgg gac ccg ctg aaa cca tct      102
Val Cys Gly Xaa Ala Val Glu Gly Leu Arg Asp Pro Leu Lys Pro Ser
   10           15           20
gaa ccc agc cag ggg gca gcg ggc aag aga aaa ggg aca gaa tat cta      150
Glu Pro Ser Gln Gly Ala Ala Gly Lys Arg Lys Gly Thr Glu Tyr Leu
   25           30           35           40
atg aag cag aaa ctg gaa ttc ggt ggg aga ggt gaa gag ctc ttg ctg      198
Met Lys Gln Lys Leu Glu Phe Gly Gly Arg Gly Glu Glu Leu Leu Leu
           45           50           55
ggg gta cac ctg cga gga gca cag aaa acg ggc ggc gga tgg cgg aga      246
Gly Val His Leu Arg Gly Ala Gln Lys Thr Gly Gly Gly Trp Arg Arg
           60           65           70
ga
                                           248
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<210> 2741  
 <211> 380  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 79..378

<400> 2741

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ggttcgttat ggccgtcgcc ggagsagctg cgggagctgg aggccgaaga acgcgaatgg      60
taccgcagcc tggcgacc atg cag gag tcg ctg cgg gtg aag cag ctg gcc      111
                               Met Gln Glu Ser Leu Arg Val Lys Gln Leu Ala
                               1           5           10
gaa gag cag aag cgt cgg gag agg gag cag cac atc gca gag tgc atg      159
Glu Glu Gln Lys Arg Arg Glu Arg Glu Gln His Ile Ala Glu Cys Met
           15           20           25
gcc aag atg cca cag atg att gtg aac tgg cag cag cag cgg gag      207
Ala Lys Met Pro Gln Met Ile Val Asn Trp Gln Gln Gln Gln Arg Glu
           30           35           40
aac tgg gag aag gcc cag gct gac aag gag agg agg gcc cga ctg cag      255
Asn Trp Glu Lys Ala Gln Ala Asp Lys Glu Arg Arg Ala Arg Leu Gln
           45           50           55
gct gag gcc cag gag ctc ctg ggc tac cag gtg gac cca agg agt gcc      303
Ala Glu Ala Gln Glu Leu Leu Gly Tyr Gln Val Asp Pro Arg Ser Ala
           60           65           70           75
cgc ttc cag gag ctg ctc cag gac cta gag aag aag gag cgc aag ssn      351
Arg Phe Gln Glu Leu Leu Gln Asp Leu Glu Lys Lys Glu Arg Lys Xaa
           80           85           90
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ctc aag gag gaa aaa cag aaa cgg aag ag 380  
 Leu Lys Glu Glu Lys Gln Lys Arg Lys  
 95 100

<210> 2742  
 <211> 362  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 146..361

<400> 2742  
 ccttttagtt ctagtcccaa ctggtttcgc aggcaaagga ggagtgggta atttagggaa 60  
 ggggttggtc ctcaaagtca ttcaagctgt actcgccgaa gagccccga acggcaacgc 120  
 cttcccccc ttccatcccc gcacc atg ctg gat agg gat gtg ggc cca act 172  
 Met Leu Asp Arg Asp Val Gly Pro Thr  
 1 5  
 ccc ata tat ccg cct aca tac ctg gag cca ggg att ggg agg cac aca 220  
 Pro Ile Tyr Pro Pro Thr Tyr Leu Glu Pro Gly Ile Gly Arg His Thr  
 10 15 20 25  
 cca tat ggc aac caa act gac tac aga ata ttt gag ctt aac aaa cgg 268  
 Pro Tyr Gly Asn Gln Thr Asp Tyr Arg Ile Phe Glu Leu Asn Lys Arg  
 30 35 40  
 ctt cag aac tgg aca gag gag tgt gac aat ctc tgg tgg gat gca ttc 316  
 Leu Gln Asn Trp Thr Glu Glu Cys Asp Asn Leu Trp Trp Asp Ala Phe  
 45 50 55  
 acg act gag ttc ttt gag gat gat gcc atg ttg acc atc act ttc t 362  
 Thr Thr Glu Phe Phe Glu Asp Asp Ala Met Leu Thr Ile Thr Phe  
 60 65 70

<210> 2743  
 <211> 372  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 48..371

<400> 2743  
 tattgaacac ctctatgtgc caggctctgt gttgggtact ttgatca atg ccc ctg 56  
 Met Pro Leu  
 1  
 ttt cag tct cat ctg tac tca cgg cag ccc tgt gga gta cgg tgt act 104  
 Phe Gln Ser His Leu Tyr Ser Arg Gln Pro Cys Gly Val Arg Cys Thr  
 5 10 15  
 ggc cca gct tac agd tgc aga aag cga gac gtt ctg cca tca gat aaa 152  
 Gly Pro Ala Tyr Xaa Cys Arg Lys Arg Asp Val Leu Pro Ser Asp Lys  
 20 25 30 35  
 gtc acg tgg ctc ttt agt aac acg gac aag gct cct cgc caa gga act 200

Val	Thr	Trp	Leu	Phe	Ser	Asn	Thr	Asp	Lys	Ala	Pro	Arg	Gln	Gly	Thr		
				40					45					50			
cgt	ggc	aga	aga	ggg	cag	cag	ttg	gca	gta	gct	gcc	gat	gtc	tgt	ccc		248
Arg	Gly	Arg	Arg	Gly	Gln	Gln	Leu	Ala	Val	Ala	Ala	Asp	Val	Cys	Pro		
			55					60					65				
cag	ctc	cac	cat	tcc	tcc	ctg	tgg	ctg	tgc	cgt	gct	cgt	ggt	ttc	agt		296
Gln	Leu	His	His	Ser	Ser	Leu	Trp	Leu	Cys	Arg	Ala	Arg	Gly	Phe	Ser		
		70					75					80					
gtc	cgt	gtg	tcc	atg	tgt	ctg	ccc	ttc	agg	agc	tgc	cag	ctg	gtg	tgc		344
Val	Arg	Val	Ser	Met	Cys	Leu	Pro	Phe	Arg	Ser	Ser	Gln	Leu	Val	Cys		
	85					90					95						
ttg	gcg	gtc	cca	ggc	ctg	tgt	agt	gtc	t								372
Leu	Ala	Val	Pro	Gly	Leu	Cys	Ser	Val									
100					105												

&lt;210&gt; 2744

&lt;211&gt; 353

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 88..351

&lt;400&gt; 2744

aaagcttctg	ccagacagat	ggaactctcc	agcatgaaaa	tctgcgcasc	attccaacaa												60
gcagggctct	gctgaggttg	tccgaag	atg	ccg	agg	aaa	agg	ata	tca	gga	ctg						114
				Met	Pro	Arg	Lys	Arg	Ile	Ser	Gly	Leu					
				1				5									
gaa	tgg	ctc	tta	cag	caa	gat	cca	ggt	ttt	tca	tta	gtc	aat	aca	gtg		162
Glu	Trp	Leu	Leu	Gln	Gln	Asp	Pro	Gly	Phe	Ser	Leu	Val	Asn	Thr	Val		
10				15				20				25					
aag	gct	ggc	atg	atc	atc	agc	ttc	cca	tcc	aat	aat	atc	tac	tca	tca		210
Lys	Ala	Gly	Met	Ile	Ile	Ser	Phe	Pro	Ser	Asn	Asn	Ile	Tyr	Ser	Ser		
			30					35				40					
gtg	tgc	tgt	tgt	caa	tca	gag	att	ttc	aag	tat	gag	ttc	tcc	aac	tca		258
Val	Cys	Cys	Cys	Gln	Ser	Glu	Ile	Phe	Lys	Tyr	Glu	Phe	Ser	Asn	Ser		
			45				50				55						
aag	aaa	agt	agc	tgg	atc	cag	gaa	agg	cat	ttg	ggg	aag	aac	aac			306
Lys	Lys	Ser	Ser	Trp	Ile	Gln	Glu	Arg	His	Leu	Gly	Lys	Asn	Asn			
	60					65				70							
gtt	ctt	trc	agt	gct	cat	gat	gtg	tct	cca	gag	aaa	gtt	act	tca	gc		353
Val	Leu	Xaa	Ser	Ala	His	Asp	Val	Ser	Pro	Glu	Lys	Val	Thr	Ser			
	75					80					85						

&lt;210&gt; 2745

&lt;211&gt; 335

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 178..333

&lt;400&gt; 2745

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aaataaaacc agggaaagca gctcagagaa tknwatttgc ctctaaccga actcttctac      60
ttattarrra aratatacaa ttattcattc cgtagcactc cagattgctt cactgaaaga      120
aagaaagaaa gggatccact ccagggagaa agaggctctt gagctttttg ttccttg      177
atg atc ctg tct tta cgt aat ttg gtg gag cct act ggg gaa tca tca      225
Met Ile Leu Ser Leu Arg Asn Leu Val Glu Pro Thr Gly Glu Ser Ser
1           5           10           15
ttt tgg gag act atg gat gtg cct cat tgc aga aga ata agt aga gag      273
Phe Trp Glu Thr Met Asp Val Pro His Cys Arg Arg Ile Ser Arg Glu
           20           25           30
cag tgt ctg gaa caa atg ctt gtc tta aaa aaa gtt tat gar atg cca      321
Gln Cys Leu Glu Gln Met Leu Val Leu Lys Lys Val Tyr Glu Met Pro
           35           40           45
gca gat gtc agt gt
Ala Asp Val Ser
50

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&lt;210&gt; 2746

&lt;211&gt; 393

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 165..392

&lt;400&gt; 2746

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aggaaacgga tggcacagaa gggactgtgg agattgagac agtgaaattg gcccgttctg      60
tcttcagcaa actacacgag atttgctgca gctgggtgaa agacttcccc ctccgcaggr      120
naccacagct ttattatgag acatcaatcc atgccatcaa aaac atg cgc agg aaa      176
Met Arg Arg Lys
1
atg gag gac aaa cat gtc tgc att cct gac ttt aat atg ctc ttc aac      224
Met Glu Asp Lys His Val Cys Ile Pro Asp Phe Asn Met Leu Phe Asn
5           10           15           20
cta gag gac cag gaa gaa caa gct tac ttt gca gtg ttt gat ggc cat      272
Leu Glu Asp Gln Glu Glu Ala Tyr Phe Ala Val Phe Asp Gly His
           25           30           35
ggg gga gwa gat gct gct att tat gcc tcc att cac ctc cac gtt aac      320
Gly Gly Xaa Asp Ala Ala Ile Tyr Ala Ser Ile His Leu His Val Asn
           40           45           50
tta gtc cgc cag gag atg ttc ccc cat gat cct gct gag gcc ctg tgc      368
Leu Val Arg Gln Glu Met Phe Pro His Asp Pro Ala Glu Ala Leu Cys
           55           60           65
agg gcc ttc cgg gtc act gat gag c
Arg Ala Phe Arg Val Thr Asp Glu
70           75

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&lt;210&gt; 2747

&lt;211&gt; 364

&lt;212&gt; DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 27..362

<400> 2747

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aacgactcgc cgcgcgtwgg tcagcc atg gcc acc gct ctc gcg cta cgt agc      53
                        Met Ala Thr Ala Leu Ala Leu Arg Ser
                        1           5
ttg tac cga gcg cga ccc tcg ctg cgc tgt ccg ccc gtt gag ctt ccc      101
Leu Tyr Arg Ala Arg Pro Ser Leu Arg Cys Pro Pro Val Glu Leu Pro
10           15           20           25
tgg gcc ccg cgg cga ggg cat cgg ctc tcg ccg gcg gat gac gag ctg      149
Trp Ala Pro Arg Arg Gly His Arg Leu Ser Pro Ala Asp Asp Glu Leu
           30           35           40
tat cag cgg acg cgc atc tct ctg ctg caa cgc gag gcc gct cag gca      197
Tyr Gln Arg Thr Arg Ile Ser Leu Leu Gln Arg Glu Ala Ala Gln Ala
           45           50           55
atg tac atc gac agc tac aac agc cgc ggc ttc atg ata aac gga aac      245
Met Tyr Ile Asp Ser Tyr Asn Ser Arg Gly Phe Met Ile Asn Gly Asn
           60           65           70
cgc gtg ctc ggc ccc tgc gct ctg ctc ccg tac tcg gtg gtg cag tgg      293
Arg Val Leu Gly Pro Cys Ala Leu Leu Pro Tyr Ser Val Val Gln Trp
           75           80           85
aac gtg gga tcc cac cag gac atc acc gaa gac agc ttt tcc ctc ttc      341
Asn Val Gly Ser His Gln Asp Ile Thr Glu Asp Ser Phe Ser Leu Phe
90           95           100           105
tgg ttg ctg gag ccc cgg ata ga      364
Trp Leu Leu Glu Pro Arg Ile
           110

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<210> 2748

<211> 268

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 100..267

<400> 2748

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tgagtatcct taaattgggt caatcaaaga aatatttgcg aagcacctct cctctaggcc      60
atccatgaac tgactaggag tgggggacag gaggggaca atg cct tca ggg agc      114
                        Met Pro Ser Gly Ser
                        1           5
tca gat ctg atg gaa gac tca aag gta agt aat aga ctc aaa ggt gac      162
Ser Asp Leu Met Glu Asp Ser Lys Val Ser Asn Arg Leu Lys Gly Asp
           10           15           20
aag ggc tct tcc tca agg tat gtg cca agt gtc acc aag cta cag gtg      210
Lys Gly Ser Ser Ser Arg Tyr Val Pro Ser Val Thr Lys Leu Gln Val
           25           30           35

```

gag acc atc acc cgt aat ttt gta cca tat gtg tct ttc cat caa atg 258  
 Glu Thr Ile Thr Arg Asn Phe Val Pro Tyr Val Ser Phe His Gln Met  
           40                          45                          50  
 acc aac agc g 268  
 Thr Asn Ser  
           55

<210> 2749  
 <211> 498  
 <212> DNA  
 <213> Homo sapiens  
  
 <220>  
 <221> CDS  
 <222> 35..496

<400> 2749  
 agccg gatcg cagcctgcgg ggccccgccgc agcc atg ggc aac cgc ggc atg gaa 55  
   Met Gly Asn Arg Gly Met Glu  
   1  5  
 gat ctc atc ccg ctg gtc aac cgg ctg caa gac gcc ttc tct gcc atc 103  
 Asp Leu Ile Pro Leu Val Asn Arg Leu Gln Asp Ala Phe Ser Ala Ile  
           10  15  20  
 ggc cag aac gcg gac ctc gac ctg ccg cag atc gct gtg gtg ggc ggc 151  
 Gly Gln Asn Ala Asp Leu Asp Leu Pro Gln Ile Ala Val Val Gly Gly  
           25  30  35  
 cag agc gcc ggc aag agc tcg gtg ctc gag aat ttc gta ggc agg gac 199  
 Gln Ser Ala Gly Lys Ser Ser Val Leu Glu Asn Phe Val Gly Arg Asp  
           40  45  50  55  
 ttc ttg cct cga gga tct ggc att gtc acc cga cgt ccc ctg gtc ttg 247  
 Phe Leu Pro Arg Gly Ser Gly Ile Val Thr Arg Arg Pro Leu Val Leu  
   60  65  70  
 cag ctg gtc aat gca acc aca gaa tat gcc gag ttc ctg cac tgc aag 295  
 Gln Leu Val Asn Ala Thr Thr Glu Tyr Ala Glu Phe Leu His Cys Lys  
   75  80  85  
 gga aag aaa ttc acc gac ttc gag gag gtg cgc ctt gag atc gag gcc 343  
 Gly Lys Lys Phe Thr Asp Phe Glu Glu Val Arg Leu Glu Ile Glu Ala  
           90  95  100  
 gag acc gac agg gtc acc ggc acc aac aag ggc atc tcg ccg gtg cct 391  
 Glu Thr Asp Arg Val Thr Gly Thr Asn Lys Gly Ile Ser Pro Val Pro  
           105  110  115  
 atc aac ctc cgc gtc tac tcg ccg cac ggt gag gac cct ggc ccc gcc 439  
 Ile Asn Leu Arg Val Tyr Ser Pro His Gly Glu Asp Pro Gly Pro Ala  
           120  125  130  135  
 cta acc tct aag aat cat ttt ctt ggc cac gca cct ctg cgt gcc tcg 487  
 Leu Thr Ser Lys Asn His Phe Leu Gly His Ala Pro Leu Arg Ala Ser  
   140  145  150  
 ctc ctc ctg ca 498  
 Leu Leu Leu

<210> 2750  
 <211> 409  
 <212> DNA

004220"6666T550

<213> Homo sapiens

<220>

<221> CDS

<222> 235..408

<400> 2750

aggcgccgtg gggttcggcg cggctacgtg cagaatccgt ctagctaaaa tgtaatttca 60  
gattggacaa gtactaactt gagagagatt tgctgggata aggcgggaca tttctttgat 120  
ctcccggact tcttatcgtg gaaggcaaca ggtgtcacag cacgggtctct ctgctccctg 180  
gtgtgtaagt ggacatattc agcagagaaa ggctgggacg acagtttctg gaaa atg 237  
Met  
1  
att ggt ttg gaa gac ttt gtt gca gat aat tac agc aaa ata gga aac 285  
Ile Gly Leu Glu Asp Phe Val Ala Asp Asn Tyr Ser Lys Ile Gly Asn  
5 10 15  
caa gtg cta cct cct gga gct tct ctt gga aat ggg ctc aca cca gag 333  
Gln Val Leu Pro Pro Gly Ala Ser Leu Gly Asn Gly Leu Thr Pro Glu  
20 25 30  
gca gca aga gac ctt ggc ctt ctc cct ggg att gcg gtc gca gct tca 381  
Ala Ala Arg Asp Leu Gly Leu Leu Pro Gly Ile Ala Val Ala Ala Ser  
35 40 45  
ctc att gat gcc cat gca gga gga cta a 409  
Leu Ile Asp Ala His Ala Gly Gly Leu  
50 55

<210> 2751

<211> 303

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 123..302

<400> 2751

caccaggakb gcaccatgca aatgggaaca aattgtcatc cgtgggttcca agtgtctata 60  
agaacctggg tcctaagcct gtaccacctc cttccaagcc taatgcatgg aaagctaaca 120  
gg atg gag cac aag tca gga tcc ctt tcc tct agc cgg gag tct gct 167  
Met Glu His Lys Ser Gly Ser Leu Ser Ser Ser Arg Glu Ser Ala  
1 5 10 15  
ttt acc agt cca atc tct gtt acc aaa cca gtg gta ctg gct agt ggt 215  
Phe Thr Ser Pro Ile Ser Val Thr Lys Pro Val Val Leu Ala Ser Gly  
20 25 30  
gca gct ctg agt tct ccc aaa gag agt ccc tcc agc acc acc cct cca 263  
Ala Ala Leu Ser Ser Pro Lys Glu Ser Pro Ser Ser Thr Thr Pro Pro  
35 40 45  
att gag atc agc tcc tct cgt ctg acc aag ttg acc cgc c 303  
Ile Glu Ile Ser Ser Ser Arg Leu Thr Lys Leu Thr Arg  
50 55 60

<210> 2752

<211> 393  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 19..393

<400> 2752

gatgaaaagg	ctgtgctt	atg	gag	aat	ata	gtc	tat	ctg	act	aat	tcg	ctt	51
		Met	Glu	Asn	Ile	Val	Tyr	Leu	Thr	Asn	Ser	Leu	
		1				5					10		
gag	cta	gaa	cac	ata	gaa	gtc	aag	ttt	gcc	tcc	gaa	gca	gaa
Glu	Leu	Glu	His	Ile	Glu	Val	Lys	Phe	Ala	Ser	Glu	Ala	Glu
			15					20				25	99
atc	agg	gaa	gac	tgc	tgt	cct	ggg	aaa	cca	ctt	aat	gtt	ttt
Ile	Arg	Glu	Asp	Cys	Cys	Pro	Gly	Lys	Pro	Leu	Asn	Val	Phe
			30				35					40	147
gaa	cct	ggg	gtg	tcc	gtt	tct	ctg	gtg	aat	ccc	cag	cca	tcc
Glu	Pro	Gly	Val	Ser	Val	Ser	Leu	Val	Asn	Pro	Gln	Pro	Ser
	45					50				55			195
cac	ttc	tca	acc	aaa	att	gaa	atc	agg	caa	gga	gat	aac	tgt
His	Phe	Ser	Thr	Lys	Ile	Glu	Ile	Arg	Gln	Gly	Asp	Asn	Cys
60				65				70				75	243
ata	atc	agg	cgt	tta	atg	aaa	atg	aat	cga	gga	att	aaa	gac
Ile	Ile	Arg	Arg	Leu	Met	Lys	Met	Asn	Arg	Gly	Ile	Lys	Asp
			80					85				90	291
aaa	gtg	aaa	ctg	atg	aga	ttt	gat	gat	cca	ctg	ttg	ggg	cct
Lys	Val	Lys	Leu	Met	Arg	Phe	Asp	Asp	Pro	Leu	Leu	Gly	Pro
		95					100					105	339
ggg	cct	gtc	ctg	gga	aag	gag	tac	acc	gag	aag	acc	ccc	att
Gly	Pro	Val	Leu	Gly	Lys	Glu	Tyr	Thr	Glu	Lys	Thr	Pro	Ile
		110				115						120	387
cat	gca												
His	Ala												393
		125											

<210> 2753  
 <211> 358  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 53..358

<400> 2753

actaccagat	gtaaatcttg	ggaaaattat	aaaatctgtt	cctggaaaac	ta	atg	aaa	58
						Met	Lys	
						1		
gag	aaa	ggg	cag	cat	ttg	gaa	cct	ttt
Glu	Lys	Gly	Gln	His	Leu	Glu	Pro	Phe
								Ile
								Met
								Asn
								Phe
								Ile
								Asn
								Ser
								106

5	10	15	
tgt gag tct cca aag cct aaa cca agt aga cca gaa ctg acc att ctc			154
Cys Glu Ser Pro Lys Pro Lys Pro Ser Arg Pro Glu Leu Thr Ile Leu			
20	25	30	
agc cct act tca gaa aac aac aag aag ctt ttc aat gat ctg ttt aaa			202
Ser Pro Thr Ser Glu Asn Asn Lys Lys Leu Phe Asn Asp Leu Phe Lys			
35	40	45	50
aat aat gca aac cgt gct gaa aat aca gag aga aag caa aat cag aat			250
Asn Asn Ala Asn Arg Ala Glu Asn Thr Glu Arg Lys Gln Asn Gln Asn			
55	60	65	
tat ttt atg gag gtg atg act gta gaa gga gtc tat gat tac ctg atg			298
Tyr Phe Met Glu Val Met Thr Val Glu Gly Val Tyr Asp Tyr Leu Met			
70	75	80	
tat gta gga cgg gta gtt ttc cag gtt cct gac tgg ctt cat cat ctc			346
Tyr Val Gly Arg Val Val Phe Gln Val Pro Asp Trp Leu His His Leu			
85	90	95	
tta atg gga acc			358
Leu Met Gly Thr			
100			
<210> 2754			
<211> 410			
<212> DNA			
<213> Homo sapiens			
<220>			
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<222> 118..408			
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gcattgcard kaaattgctt ggatgaagat gwtccactg agagtctact aaagaaaatt			60
gagcgggaaa catggcggga aagtggcggt tcattaattg ctactgtaac tcgtcta			117
atg gag agg ttg tta gat tac agg gac tgc atg aaa atg gga gag gta			165
Met Glu Arg Leu Leu Asp Tyr Arg Asp Cys Met Lys Met Gly Glu Val			
1	5	10	15
gat ggc aaa aag att ggc tgc aca gtt agc ctt ctg aac ttc tat aag			213
Asp Gly Lys Lys Ile Gly Cys Thr Val Ser Leu Leu Asn Phe Tyr Lys			
20	25	30	
act gaa ctg aac aag gag gag atg tat ata cgc tac att cac aaa ctc			261
Thr Glu Leu Asn Lys Glu Glu Met Tyr Ile Arg Tyr Ile His Lys Leu			
35	40	45	
tat gat ctg cat ctc aaa gca cag aac ttt aca gaa gct gca tat acc			309
Tyr Asp Leu His Leu Lys Ala Gln Asn Phe Thr Glu Ala Ala Tyr Thr			
50	55	60	
ctc ctc tta tat gac gag cta ctg gaa tgg tct gat cgg ccc ctc agg			357
Leu Leu Leu Tyr Asp Glu Leu Leu Glu Trp Ser Asp Arg Pro Leu Arg			
65	70	75	80
gag ttc ctg acc tac ccc atg caa aca gaa tgg cag cgc aaa gag cac			405
Glu Phe Leu Thr Tyr Pro Met Gln Thr Glu Trp Gln Arg Lys Glu His			
85	90	95	
ctg ca			410
Leu			



<210> 2755  
 <211> 249  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 70..249

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 tcaggtagc atg atg cct cca gct ttg ttc att ggg ctt agg att gtc ttg 111  
 Met Met Pro Pro Ala Leu Phe Ile Gly Leu Arg Ile Val Leu  
 1 5 10  
 gca atg cgg gct ctt ttt tgg ttc cat atg aac att aaa gta gtc ttt 159  
 Ala Met Arg Ala Leu Phe Trp Phe His Met Asn Ile Lys Val Val Phe  
 15 20 25 30  
 tgc aac tct cat cag ccc agt tta ata tta cct att tat tat aat gta 207  
 Cys Asn Ser His Gln Pro Ser Leu Ile Leu Pro Ile Tyr Tyr Asn Val  
 35 40 45  
 atg ctg ctc gca caa ctg aga aaa tac tgt tgc tat acc ccg 249  
 Met Leu Leu Ala Gln Leu Arg Lys Tyr Cys Cys Tyr Thr Pro  
 50 55 60

<210> 2756  
 <211> 344  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 25..342

<400> 2756  
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 Met Thr Lys Asn His Ala Ala Ile Lys  
 1 5  
 aca cat gca cac gta tgt tta ttg tgg cat tat tca cag ata gca aag 99  
 Thr His Ala His Val Cys Leu Leu Trp His Tyr Ser Gln Ile Ala Lys  
 10 15 20 25  
 act tgg aac caa ccc aaa tgt cca aca atg ata gac tgg att aag aaa 147  
 Thr Trp Asn Gln Pro Lys Cys Pro Thr Met Ile Asp Trp Ile Lys Lys  
 30 35 40  
 atg tgg cac ata tac acc atg gaa tac tat gca gcc ata aaa aat gat 195  
 Met Trp His Ile Tyr Thr Met Glu Tyr Tyr Ala Ala Ile Lys Asn Asp  
 45 50 55  
 gag ttc atg tcc ttt gta ggg aca tgg atg aaa ttg gaa acc atc att 243  
 Glu Phe Met Ser Phe Val Gly Thr Trp Met Lys Leu Glu Thr Ile Ile  
 60 65 70  
 ctc agt aaa cta tcg caa gam caa aaa aac caa aca ccg bmt wtt ctc 291  
 Leu Ser Lys Leu Ser Gln Xaa Gln Lys Asn Gln Thr Pro Xaa Xaa Leu  
 75 80 85

act cat agg tgg gaa ttg arc mat gag atc aca tgg aca cag gaa ggg 339  
 Thr His Arg Trp Glu Leu Xaa Xaa Glu Ile Thr Trp Thr Gln Glu Gly  
 90 95 100 105  
 gac tg 344  
 Asp

<210> 2757  
 <211> 343  
 <212> DNA  
 <213> Homo sapiens

<220>  
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 <222> 66..341

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 cacgt atg twt att gtg gca tta ttc aca ata gca aag act tgg aac caa 110  
 Met Xaa Ile Val Ala Leu Phe Thr Ile Ala Lys Thr Trp Asn Gln  
 1 5 10 15  
 ccc aaa tgt cca aca atg ata gac tgg att aag aaa atg tgg cac ata 158  
 Pro Lys Cys Pro Thr Met Ile Asp Trp Ile Lys Lys Met Trp His Ile  
 20 25 30  
 tac acc atg gaa tac tat gca gcc ata aaa aat gat gag ttc atg tcc 206  
 Tyr Thr Met Glu Tyr Tyr Ala Ala Ile Lys Asn Asp Glu Phe Met Ser  
 35 40 45  
 ttt gta ggg aca tgg atg aaa ttg gaa acc atc att ctc agt aaa cta 254  
 Phe Val Gly Thr Trp Met Lys Leu Glu Thr Ile Ile Leu Ser Lys Leu  
 50 55 60  
 tcg caa gaa caa aaa aac caa aca ccg cat att ctc act cat agg tgg 302  
 Ser Gln Glu Gln Lys Asn Gln Thr Pro His Ile Leu Thr His Arg Trp  
 65 70 75  
 gaa ttg aac aat gag atc aca tgg aca cag gaa ggg gac tg 343  
 Glu Leu Asn Asn Glu Ile Thr Trp Thr Gln Glu Gly Asp  
 80 85 90

<210> 2758  
 <211> 322  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 169..321

<400> 2758  
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 tcagctcact gcaacctcca catcctgggt caagcaattc tccattacag gcgcccacta 120  
 ccacgctcag ctaatttttg tatttttttag tagagatggg gtttcacc atg ttg acc 177  
 Met Leu Thr  
 1  
 aga ctg gac ctc agg cga tct gcc cac ctc ggc ctc cta aag tgc tgg 225

Arg	Leu	Asp	Leu	Arg	Arg	Ser	Ala	His	Leu	Gly	Leu	Leu	Lys	Cys	Trp	
5						10					15					
gat	tac	agg	cgg	gag	gat	agc	ttg	agc	cca	gga	gtt	cga	gac	ctg	cct	273
Asp	Tyr	Arg	Arg	Glu	Asp	Ser	Leu	Ser	Pro	Gly	Val	Arg	Asp	Leu	Pro	
20				25					30					35		
ggg	caa	tat	agc	gag	acc	ccg	ttc	tcc	aga	aaa	agg	aaa	aaa	aaa	aaa	322
Gly	Gln	Tyr	Ser	Glu	Thr	Pro	Phe	Ser	Arg	Lys	Arg	Lys	Lys	Lys	Lys	
				40					45					50		

<210> 2759  
 <211> 330  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 169..330

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tcagctcact	gcaacctcca	catcctgggt	caagcaattc	tccattacag	gcgcccacta											120
ccacgctcag	ctaatttttg	tatttttttag	tagagatggg	gtttcacc	atg ttg acc											177
					Met Leu Thr											
					1											
aga	ctg	gac	ctc	agg	cga	tct	gcc	cac	ctc	ggc	ctc	cta	aag	tgc	tgg	225
Arg	Leu	Asp	Leu	Arg	Arg	Ser	Ala	His	Leu	Gly	Leu	Leu	Lys	Cys	Trp	
5						10					15					
gat	tac	agg	cgg	gag	gat	agc	ttg	agc	cca	gga	gtt	cga	gac	ctg	cct	273
Asp	Tyr	Arg	Arg	Glu	Asp	Ser	Leu	Ser	Pro	Gly	Val	Arg	Asp	Leu	Pro	
20				25					30					35		
ggg	caa	tat	agc	gag	acc	ccg	ttc	tcc	aga	aaa	agg	aaa	aaa	aaa	aaa	321
Gly	Gln	Tyr	Ser	Glu	Thr	Pro	Phe	Ser	Arg	Lys	Arg	Lys	Lys	Lys	Lys	
				40					45					50		
aaa	aaa	cca														330
Lys	Lys	Pro														

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 <211> 331  
 <212> DNA  
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<220>  
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 <222> 169..330

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tcagctcact	gcaacctcca	catcctgggt	caagcaattc	tccattacag	gcgcccacta											120
ccacgctcag	ctaatttttg	tatttttttag	tagagatggg	gtttcacc	atg ttg acc											177
					Met Leu Thr											
					1											
aga	ctg	gac	ctc	agg	cga	tct	gcc	cac	ctc	ggc	ctc	cta	aag	tgc	tgg	225

Arg Leu Asp Leu Arg Arg Ser Ala His Leu Gly Leu Leu Lys Cys Trp  
 5 10 15  
 gat tac agg cgg gag gat agc ttg agc cca gga gtt cga gac ctg cct 273  
 Asp Tyr Arg Arg Glu Asp Ser Leu Ser Pro Gly Val Arg Asp Leu Pro  
 20 25 30 35  
 ggg caa tat agc gag acc ccg ttc tcc aga aaa agg aaa aaa aaa 321  
 Gly Gln Tyr Ser Glu Thr Pro Phe Ser Arg Lys Arg Lys Lys Lys Lys  
 40 45 50  
 aaa aam cca a 331  
 Lys Xaa Pro

<210> 2761  
 <211> 199  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 34..198

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 Met Lys Ile Ile Phe Ser Phe  
 1 5  
 ctt tca gat ttg gag tcc agg aat gag act aag cat tta tct gta gga 102  
 Leu Ser Asp Leu Glu Ser Arg Asn Glu Thr Lys His Leu Ser Val Gly  
 10 15 20  
 aaa gat att att caa aac act ggt tct cag tgg gag gta atg gaa agt 150  
 Lys Asp Ile Ile Gln Asn Thr Gly Ser Gln Trp Glu Val Met Glu Ser  
 25 30 35  
 agc aag tta tgt ggc ctt gaa ggt tcc att ttc aga aat gac tgg cca a 199  
 Ser Lys Leu Cys Gly Leu Glu Gly Ser Ile Phe Arg Asn Asp Trp Pro  
 40 45 50 55

<210> 2762  
 <211> 323  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 100..321

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 aaaacaacac tggagaacgt tttttaaaag cagtnagag atg aca aat twa agt 114  
 Met Thr Asn Xaa Ser  
 1 5  
 aca tca gga aag aag gcc tcc cag gtc att gtg caa gta aat kaa aga 162  
 Thr Ser Gly Lys Lys Ala Ser Gln Val Ile Val Gln Val Asn Xaa Arg  
 10 15 20  
 gca tct gtg act acc att gca gaa ggg att cag cca gag gag cag gat 210

Ala	Ser	Val	Thr	Thr	Ile	Ala	Glu	Gly	Ile	Gln	Pro	Glu	Glu	Gln	Asp	
			25					30				35				
gtc	agc	agt	gga	aca	cac	atc	ttc	aag	agc	aag	cat	ata	aaa	ttg	caa	258
Val	Ser	Ser	Gly	Thr	His	Ile	Phe	Lys	Ser	Lys	His	Ile	Lys	Leu	Gln	
		40					45				50					
aga	cct	tgt	gaa	gct	gct	gtc	atc	tcc	agt	atg	aga	agt	cag	cag	cag	306
Arg	Pro	Cys	Glu	Ala	Ala	Val	Ile	Ser	Ser	Met	Arg	Ser	Gln	Gln	Gln	
	55					60				65						
gca	ctg	cca	gag	caa	tc											323
Ala	Leu	Pro	Glu	Gln												
70																

<210> 2763  
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 <212> DNA  
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<220>  
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 <222> 130..357

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ctcgatgtgt gtcagccaag tagctgggtcc cactggagcg ggakwaagag agagcgcgaa	120
agagagagg atg tct ctc tca gac tgg cac ctg gcg gtg aag ctg gct gac	171
Met Ser Leu Ser Asp Trp His Leu Ala Val Lys Leu Ala Asp	
1 5 10	
cag cca ctt act cca aag tct att ctt cgg ttg cca gag aca gaa ctg	219
Gln Pro Leu Thr Pro Lys Ser Ile Leu Arg Leu Pro Glu Thr Glu Leu	
15 20 25 30	
gga gaa tac tcg cta ggg ggc tat agt att tca ttt ctg aag cag ctt	267
Gly Glu Tyr Ser Leu Gly Gly Tyr Ser Ile Ser Phe Leu Lys Gln Leu	
35 40 45	
att gct ggc aaa ctc cag gar tct gtt cca gac cct gag ctg att gat	315
Ile Ala Gly Lys Leu Gln Glu Ser Val Pro Asp Pro Glu Leu Ile Asp	
50 55 60	
ctg atc tac tgt ggt cgg aag cta aaa gat gac cag aca ctt ga	359
Leu Ile Tyr Cys Gly Arg Lys Leu Lys Asp Asp Gln Thr Leu	
65 70 75	

<210> 2764  
 <211> 381  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 176..379

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tgagatccat gagaaagaag aggaagagtt caatgagaag agtgaaaatg attccggtat	120

004220"666E"560

caacgaggag cctctgctca cagcagatca ggtaattgag gagattgagg ammtg atg 178  
Met  
1  
cag aac tcc cca gac cct gag gaa gaa gag gag gtt ctg gaa gaa gag 226  
Gln Asn Ser Pro Asp Pro Glu Glu Glu Glu Glu Val Leu Glu Glu Glu  
5 10 15  
gat gga gga gaa act tcc tcc cag gca gac tcg gtc ctc ctg cag gag 274  
Asp Gly Gly Glu Thr Ser Ser Gln Ala Asp Ser Val Leu Leu Gln Glu  
20 25 30  
atg cag gca ttg aca cag asc ttc aac wac aac tgg tcc tat gaa ggg 322  
Met Gln Ala Leu Thr Gln Xaa Phe Asn Xaa Asn Trp Ser Tyr Glu Gly  
35 40 45  
ctg agg cac atg tct ggg tct gag ctg acc gag ctg ctg gac cak gtg 370  
Leu Arg His Met Ser Gly Ser Glu Leu Thr Glu Leu Leu Asp Xaa Val  
50 55 60 65  
gag ggt gcc tr 381  
Glu Gly Ala

<210> 2765  
<211> 236  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 71..235

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cgttttaagg atg gag aaa cag ggg cac acg aag gtt aag caa cct gct 109  
Met Glu Lys Gln Gly His Thr Lys Val Lys Gln Pro Ala  
1 5 10  
caa ggt cac cca gct gtg agt agt gga gtg gag ttt gaa ccc aga cag 157  
Gln Gly His Pro Ala Val Ser Ser Gly Val Glu Phe Glu Pro Arg Gln  
15 20 25  
tcc agc tgt gtg tgg gtt ctt tcc agc aca cca cct ctc ccc acc acc 205  
Ser Ser Cys Val Trp Val Leu Ser Ser Thr Pro Pro Leu Pro Thr Thr  
30 35 40 45  
att tct gca gct cct gct ctg aac cac tta c 236  
Ile Ser Ala Ala Pro Ala Leu Asn His Leu  
50 55

<210> 2766  
<211> 280  
<212> DNA  
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<220>  
<221> CDS  
<222> 110..280

<400> 2766

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 tcttcatcat tcatatgagg aaataagtgg taaaatcctt ggaaatata atg aga ctc 118  
 Met Arg Leu  
 1  
 atc aga aac att tac ata ttt tgt agt att gtt atg aca gca gag ggt 166  
 Ile Arg Asn Ile Tyr Ile Phe Cys Ser Ile Val Met Thr Ala Glu Gly  
 5 10 15  
 gat gct cca gag ctg cca gaa gaa agg gaa ctg atg acc aac tgc tcc 214  
 Asp Ala Pro Glu Leu Pro Glu Glu Arg Glu Leu Met Thr Asn Cys Ser  
 20 25 30 35  
 aac atg tct cta aga aag gtt ccc gca gac ttg acc cca gcc aca acg 262  
 Asn Met Ser Leu Arg Lys Val Pro Ala Asp Leu Thr Pro Ala Thr Thr  
 40 45 50  
 aca ctg gac tcc tac aac 280  
 Thr Leu Asp Ser Tyr Asn  
 55

<210> 2767  
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 <212> DNA  
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<220>  
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 <222> 170..427

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 actattaagc tttcaaagat acttccatgc atcaaggctg cttcgtggaa ttataaccaca 120  
 agsnctctg cacctnctgg atgaagacta ncttggacaa gcaaggcat atg ctc tcc 178  
 Met Leu Ser  
 1  
 aaa gtg gga atg tgg gat ttt gac att ttc ttg ttt gat cgc ttg aca 226  
 Lys Val Gly Met Trp Asp Phe Asp Ile Phe Leu Phe Asp Arg Leu Thr  
 5 10 15  
 aat gga aac agc ctg gta aca ctg ttg tgc cac ctc ttc aat aan mva 274  
 Asn Gly Asn Ser Leu Val Thr Leu Leu Cys His Leu Phe Asn Xaa Xaa  
 20 25 30 35  
 tgg act cat tca cca ttt caa gtt aga tat ggt gab vtt aca ccg att 322  
 Trp Thr His Ser Pro Phe Gln Val Arg Tyr Gly Xaa Xaa Thr Pro Ile  
 40 45 50  
 ttt agt cat ggt tca aga aga tta cca cag ycr waa abg gta tca caa 370  
 Phe Ser His Gly Ser Arg Arg Leu Pro Gln Xaa Xaa Xaa Val Ser Gln  
 55 60 65  
 tgc tgt tca cgc agm cga cgt cac cca ggc cat gca ctg cta cct gaa 418  
 Cys Cys Ser Arg Xaa Arg Arg His Pro Gly His Ala Leu Leu Pro Glu  
 70 75 80  
 aga gcc ggt 427  
 Arg Ala Gly  
 85

<210> 2768  
 <211> 222

<212> DNA  
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<220>  
<221> CDS  
<222> 66..221

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cacgg atg gcc ccg ctg cca gga gca gaa ctg gtt cgg agg cca ctg cag 110  
Met Ala Pro Leu Pro Gly Ala Glu Leu Val Arg Arg Pro Leu Gln  
1 5 10 15  
ctc tac cga tac ttg ctg cgc tgt tgc cag cag ctg ccg acc aag ggc 158  
Leu Tyr Arg Tyr Leu Leu Arg Cys Cys Gln Gln Leu Pro Thr Lys Gly  
20 25 30  
atc cag cag cat tac aag cat gct gtc agg cag agt ttt cgg gtt cat 206  
Ile Gln Gln His Tyr Lys His Ala Val Arg Gln Ser Phe Arg Val His  
35 40 45  
tca gat gaa gac aac c 222  
Ser Asp Glu Asp Asn  
50

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<211> 449  
<212> DNA  
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<220>  
<221> CDS  
<222> 243..449

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cagctcctac aattgtgtaa ggtgtcaggc ccatattgtg tctggagttg gttcctgctg 120  
gtgggttcgt ggtctcgctg acttcaagaa tggagctgca gaccttccaa gagcaatgaa 180  
gtgggtgat gcattgcaag ctatgaacaa aaggcttctc atggtgaaac caactctacc 240  
aa atg gta aac gac agc agt agg kbt ggw gaa cac ttt cck ggt akg 287  
Met Val Asn Asp Ser Ser Arg Xaa Gly Glu His Phe Pro Gly Xaa  
1 5 10 15  
aty wag aaa gay wda gga gaa aat gtg aat gca aac tgc cat tta grt 335  
Ile Xaa Lys Asp Xaa Gly Glu Asn Val Asn Ala Asn Cys His Leu Xaa  
20 25 30  
aat gtc tgt ata gct gca aat att aat aar act tta aca aaa atc aga 383  
Asn Val Cys Ile Ala Ala Asn Ile Asn Lys Thr Leu Thr Lys Ile Arg  
35 40 45  
tcc ata ara gaa cct gtg gct ttg cta caa gaa gtc tat aga aat tct 431  
Ser Ile Xaa Glu Pro Val Ala Leu Leu Gln Glu Val Tyr Arg Asn Ser  
50 55 60  
gtg aca gat ctt tca cca 449  
Val Thr Asp Leu Ser Pro  
65



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[illegible][illegible]

His	Ser	Ala	Glu	Gln	Leu	Lys	Ala	Gln	Ala	Ile	Asp	Phe	Ile	Asn	Arg	
60						65				70						
tgc	agt	gta	ctt	cga	caa	ctt	ggg	tgt	aaa	gat	ggg	aaa	aac	tgg	aac	293
Cys	Ser	Val	Leu	Arg	Gln	Leu	Gly	Cys	Lys	Asp	Gly	Lys	Asn	Trp	Asn	
75					80				85				90			
agc	aac	caa	gca	acc	gtc	att										314
Ser	Asn	Gln	Ala	Thr	Val	Ile										
					95											

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<220>  
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 <222> 199..417

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gmacaactgg	tgggccctgc	ccagagcggc	ctcctgcagc	aacagcaaca	ggacttcgat											180
cctgtgcagc	gttataag	atg	ctc	atc	ccg	cag	ctg	aag	gag	agt	cta	cag				231
		Met	Leu	Ile	Pro	Gln	Leu	Lys	Glu	Ser	Leu	Gln				
		1			5						10					
acc	ttg	atg	aag	gtt	gcg	gcc	caa	aac	ttg	att	srg	aac	act	aac	atc	
Thr	Leu	Met	Lys	Val	Ala	Ala	Gln	Asn	Leu	Ile	Xaa	Asn	Thr	Asn	Ile	279
			15					20					25			
gac	aat	gga	caa	aag	agc	agt	gat	gga	ccc	ata	cag	cgc	ttt	gac	aag	
Asp	Asn	Gly	Gln	Lys	Ser	Ser	Asp	Gly	Pro	Ile	Gln	Arg	Phe	Asp	Lys	327
		30				35					40					
tgc	ctg	gaa	gag	ttc	tat	gca	ctc	tgt	gac	cag	ctg	gag	ctg	tkc	ctg	
Cys	Leu	Glu	Glu	Phe	Tyr	Ala	Leu	Cys	Asp	Gln	Leu	Glu	Leu	Xaa	Leu	375
		45				50				55						
cgc	ctg	gcg	vat	gag	tnc	ctg	tca	cag	agt	tgt	gac	agt	gcc			
Arg	Leu	Ala	Xaa	Glu	Xaa	Leu	Ser	Gln	Ser	Cys	Asp	Ser	Ala			417
60					65					70						

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 <211> 367  
 <212> DNA  
 <213> Homo sapiens

<220>  
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 <222> 111..365

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ggtgttggtc	acaaggaaga	aagatctttg	tttaatccct	ctgaaaagaa	atg	gct										116
						Met	Ala									
						1										

tca gac ata cct gga tct gtg acg ttg ccc gtt gcc ccc atg gcg gcc	164
Ser Asp Ile Pro Gly Ser Val Thr Leu Pro Val Ala Pro Met Ala Ala	
5 10 15	
acc gga cag gtg agg atg gcg ggg gcc atg cct gcc cgt gga gga aag	212
Thr Gly Gln Val Arg Met Ala Gly Ala Met Pro Ala Arg Gly Gly Lys	
20 25 30	
cgg cgt tcc gga atg gac ttc gat gat gaa gat ggt gaa ggc ccc agt	260
Arg Arg Ser Gly Met Asp Phe Asp Asp Glu Asp Gly Glu Gly Pro Ser	
35 40 45 50	
aaa ttt tca aga gag art cat agt gaa atc gaa agg cgc aga cgg aac	308
Lys Phe Ser Arg Glu Xaa His Ser Glu Ile Glu Arg Arg Arg Arg Asn	
55 60 65	
aag atg act cag tac atc acg gag ctc tcc gac atg gtc ccc aca tgc	356
Lys Met Thr Gln Tyr Ile Thr Glu Leu Ser Asp Met Val Pro Thr Cys	
70 75 80	
agc gac tgg ct	367
Ser Asp Trp	
85	

<210> 2774  
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 <212> DNA  
 <213> Homo sapiens

<220>  
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 <222> 120..284

<400> 2774	
attccgtgcg ggacgmgtg tctccaagg gtcgggataa actagggggc ggttgatctg	60
aaagtcttag ccacgactaa tagtcaaccg nhcaggtgcg acccgagca gccttggcg	119
atg cag ctc gtt ctc cag acg cgg gtc cac acc ggc gcg tcc tcg cct	167
Met Gln Leu Val Leu Gln Thr Arg Val His Thr Gly Ala Ser Ser Pro	
1 5 10 15	
cca ggg acc gat cgc tgt tct ccg tgg cmg gtg act tgg ggc gcc agt	215
Pro Gly Thr Asp Arg Cys Ser Pro Trp Xaa Val Thr Trp Gly Ala Ser	
20 25 30	
dag aag caa gtk stc aaa gaa aac atc ycg ggc aaa ccg gct gac cga	263
Xaa Lys Gln Val Xaa Lys Glu Asn Ile Xaa Gly Lys Pro Ala Asp Arg	
35 40 45	
aaa tyc act gtc ggg gta ggg a	285
Lys Xaa Thr Val Gly Val Gly	
50 55	

<210> 2775  
 <211> 352  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 177..350

&lt;400&gt; 2775

aacagasnsa ggcagcagcg gtasascagc agaagcagta gcaagccccg cagctgagag 60  
 caccgcagcg tcgagatgta ccatacctgcc tactgggtcg tcttctcggc gacaactgcc 120  
 ctgctcttca tcccaggagt gcccggtgcgc asggagatgc caccttcccc aaagct atg 179  
 Met

1  
 gac aac gtg acg gtc cgg cag ggg gag agc gcc acc ctc agg tgt acc 227  
 Asp Asn Val Thr Val Arg Gln Gly Glu Ser Ala Thr Leu Arg Cys Thr  
 5 10 15  
 ata gat gac cgg gta acc cgg gtg gcc tgg cta aac cgc agc acc atc 275  
 Ile Asp Asp Arg Val Thr Arg Val Ala Trp Leu Asn Arg Ser Thr Ile  
 20 25 30  
 ctc tac gct ggg aat gac aag tgg tcc atm sas cct cgt gtg atc atc 323  
 Leu Tyr Ala Gly Asn Asp Lys Trp Ser Ile Xaa Pro Arg Val Ile Ile  
 35 40 45  
 ctg gtc aat aca cca acc cag tac agc ct 352  
 Leu Val Asn Thr Pro Thr Gln Tyr Ser  
 50 55

&lt;210&gt; 2776

&lt;211&gt; 291

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 41..289

&lt;400&gt; 2776

ggagcgccga ccgcaggcct ctacggacct tactagaaaa atg aaa cct gat gaa 55  
 Met Lys Pro Asp Glu  
 1 5  
 act cct atg ttt gac cca agt cta ctc aaa gaa gtg gac tgg agt cag 103  
 Thr Pro Met Phe Asp Pro Ser Leu Leu Lys Glu Val Asp Trp Ser Gln  
 10 15 20  
 aat aca gct aca ttt tct cca gcc att tcc cca aca cat cct gga gaa 151  
 Asn Thr Ala Thr Phe Ser Pro Ala Ile Ser Pro Thr His Pro Gly Glu  
 25 30 35  
 ggc ttg gtt ttg agg cct ctt tgt act gct gac tta aat aga ggt ttt 199  
 Gly Leu Val Leu Arg Pro Leu Cys Thr Ala Asp Leu Asn Arg Gly Phe  
 40 45 50  
 ttt aag gta ttg ggt cag cta aca gag act gga gtt gtc agc cct gaa 247  
 Phe Lys Val Leu Gly Gln Leu Thr Glu Thr Gly Val Val Ser Pro Glu  
 55 60 65  
 caa ttt atg aaa tct ttt gag cat atg aag aaa tct ggg gac aa 291  
 Gln Phe Met Lys Ser Phe Glu His Met Lys Lys Ser Gly Asp  
 70 75 80

&lt;210&gt; 2777

&lt;211&gt; 204

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

<220>  
 <221> CDS  
 <222> 29..202

<400> 2777

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ttcccttccc gcgtkccccg ggagaaac atg gcc ggg agc agc gag gag gcg      52
                        Met Ala Gly Ser Ser Glu Glu Ala
                        1           5
cca gac tac ggg cga ggc gtc gtg att atg gat gat tgg cca ggg tat      100
Pro Asp Tyr Gly Arg Gly Val Val Ile Met Asp Asp Trp Pro Gly Tyr
    10           15           20
gac ttg aat tta ttc acg tac cca cag cac tat tat gga gac ttg gag      148
Asp Leu Asn Leu Phe Thr Tyr Pro Gln His Tyr Tyr Gly Asp Leu Glu
    25           30           35           40
tat gtc ctc atc cct cat ggt atc att gtg gac aga att gag crr ctg      196
Tyr Val Leu Ile Pro His Gly Ile Ile Val Asp Arg Ile Glu Xaa Leu
        45           50           55
gcc aag at
Ala Lys
                                204

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<210> 2778  
 <211> 433  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 278..433

<400> 2778

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tattataaac aatatggaga taattcttgt gtagatctct ttgcacatgt ggatgttttc      60
agtagtgtaa aatttttaaaa ctgtgtgctg agtcatactg aataaacact tccaatttta      120
aaagatattg tcaaattaac ctaccagcgt atattactac cagcagaatc taagagctat      180
accctcacca cggtagata ttatcagtgt ttaaaaaaaaa aatcttttgc agtctcatag      240
taaaaacata ctataaaact cattgtttta ttttgtc atg tgt ggt att tac tat      295
                        Met Cys Gly Ile Tyr Tyr
                        1           5
atc tgt tgg cca ttt tat tta ttt ttt ctg tgt att tac caa tgt gag      343
Ile Cys Trp Pro Phe Tyr Leu Phe Phe Leu Cys Ile Tyr Gln Cys Glu
    10           15           20
twc ttt gcc twa ttt cct tgg agg tat ttg ttg gtt att gaa gct cat      391
Xaa Phe Ala Xaa Phe Pro Trp Arg Tyr Leu Leu Val Ile Glu Ala His
    25           30           35
gtt ttt atc ata aat kaa ttt ttt tgt aat aat tgt agt agc
Val Phe Ile Ile Asn Xaa Phe Phe Cys Asn Asn Cys Ser Ser      433
    40           45           50

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<210> 2779  
 <211> 398  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 206..397

<400> 2779  
 gagcagcccg cgaggggnaa gtgggagctg cgaccgcgct ccctgtgagg tgggcaagcg 60  
 gcgaaatggc gccctccggg agtccttgag ttccctggc agtcctggg ctgttgcttt 120  
 ggggtgctcc ctggacgcac gggcggcgga saacgttcgc gtcacacgg acgagaactg 180  
 gagagaactg ctggaaggag actgg atg ata gaa ttt tat gcc ccg tgg tgc 232  
 Met Ile Glu Phe Tyr Ala Pro Trp Cys  
 1 5  
 cct gct tgt caa aat ctt caa ccg gaa tgg gaa agt ttt gct gaa tgg 280  
 Pro Ala Cys Gln Asn Leu Gln Pro Glu Trp Glu Ser Phe Ala Glu Trp  
 10 15 20 25  
 gga gaa gat ctt gag gtt aat att gcg aaa gta gat gtc aca gag cag 328  
 Gly Glu Asp Leu Glu Val Asn Ile Ala Lys Val Asp Val Thr Glu Gln  
 30 35 40  
 cca gga ctg agt gga cgg ttt atc ata act gct ctt cct act att tat 376  
 Pro Gly Leu Ser Gly Arg Phe Ile Ile Thr Ala Leu Pro Thr Ile Tyr  
 45 50 55  
 cat tgt aaa gat ggt gaa ttt a 398  
 His Cys Lys Asp Gly Glu Phe  
 60

<210> 2780  
 <211> 417  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 191..415

<400> 2780  
 acattcacct tgatgaggaa gagacctgat ggctggcctt tctaaccctc cagtcagtct 60  
 gttgaaataa ggatcacact catctgtata atatagacat ggtttttagca attycgcagt 120  
 tatttttcta cattcacttt aaatttacag aaagattgtg gaagaaaaat atgaagaaaa 180  
 tagcaaacga atg caa gaa ttg aga tct cgg aac ttt cag cag ctg agt 229  
 Met Gln Glu Leu Arg Ser Arg Asn Phe Gln Gln Leu Ser  
 1 5 10  
 gtt gat gta ctc cat gaa tct gat gaa cca act tta gag aac ctg cct 277  
 Val Asp Val Leu His Glu Ser Asp Glu Pro Thr Leu Glu Asn Leu Pro  
 15 20 25  
 gag tct cag cct att cct tcc atg gac ctc cac gaa ctt gaa tca att 325  
 Glu Ser Gln Pro Ile Pro Ser Met Asp Leu His Glu Leu Glu Ser Ile  
 30 35 40 45  
 gta gag gat gcc aca tct gac ctt gga tac cat gag atc cca gaa gac 373  
 Val Glu Asp Ala Thr Ser Asp Leu Gly Tyr His Glu Ile Pro Glu Asp  
 50 55 60  
 cca ctt gtg gct gaa gag tac tac gct gat gca ttt gat tcc ta 417  
 Pro Leu Val Ala Glu Glu Tyr Tyr Ala Asp Ala Phe Asp Ser

65

70

75

&lt;210&gt; 2781

&lt;211&gt; 440

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 137..439

&lt;400&gt; 2781

atgctagcct ctggctcctc aggggacaca gccgagtggg cggaccaaac gcaacgagtc 60  
 ttcgccagcc caaaggcgac tcgacaccgt cccagctgaa gagaggcacg ggactgaacc 120  
 agctggtggt ggccccg atg gct gga gac acc cac tgc ccc gca gag ccc ctg 172  
                   1                  5                  10  
 Met Ala Gly Asp Thr His Cys Pro Ala Glu Pro Leu  
 gcc aga gaa ggc act tta tgg gag gcc ctc agg gcg ctc ctg ccg cac 220  
 Ala Arg Glu Gly Thr Leu Trp Glu Ala Leu Arg Ala Leu Leu Pro His  
                   15                  20                  25  
 agt aaa gaa gac ctg aag ttg gac ctc ggg gag aaa gtg gag agg agc 268  
 Ser Lys Glu Asp Leu Lys Leu Asp Leu Gly Glu Lys Val Glu Arg Ser  
                   30                  35                  40  
 gtg gtg aca ttg ttg cag cga gcc act gag ctc ttc tac gag ggc agg 316  
 Val Val Thr Leu Leu Gln Arg Ala Thr Glu Leu Phe Tyr Glu Gly Arg  
                   45                  50                  55                  60  
 agg gac gag tgt ctg cag agc agc gag gkg atc ctg gac tac tcc tgg 364  
 Arg Asp Glu Cys Leu Gln Ser Ser Glu Xaa Ile Leu Asp Tyr Ser Trp  
                   65                  70                  75  
 gag aag ctc aac acg ggc aca tgg cag gac gta gac aaa gac tgg cgc 412  
 Glu Lys Leu Asn Thr Gly Thr Trp Gln Asp Val Asp Lys Asp Trp Arg  
                   80                  85                  90  
 cgg gtc tac gcc atc ggc tgc ctc ctg a 440  
 Arg Val Tyr Ala Ile Gly Cys Leu Leu  
                   95                  100

&lt;210&gt; 2782

&lt;211&gt; 437

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 189..437

&lt;400&gt; 2782

ggttctggaa atcagggtac tgggccagtc atttagccgg gcgaaagtat catatcagtg 60  
 cactatatgt tgtggatctg aagaagttaa ggaaaatagc tgctggtgac agactcaggg 120  
 gacagtacca aggtctgagt caggacccta acagcctttc aaatcttgat caagatctgc 180  
 ccaataac atg att cat cag gtg cca att aaa tcc ctc cct caa gaa tgg 230  
                   1                  5                  10  
 Met Ile His Gln Val Pro Ile Lys Ser Leu Pro Gln Glu Trp

```

ctt tgg tgt gaa acg tgg tgt gat gac gcc tct aag aaa agg gca aaa      278
Leu Trp Cys Glu Thr Trp Cys Asp Asp Ala Ser Lys Lys Arg Ala Lys
15                               20                               25                               30
acc att gat ttg tgt aat aat ccg atg acc aaa gag ccg aaa ctg gaa      326
Thr Ile Asp Leu Cys Asn Asn Pro Met Thr Lys Glu Pro Lys Leu Glu
                               35                               40                               45
gca gct gtg cgg att gtc ccg gag tgg cag gac tac gac caa gag atc      374
Ala Ala Val Arg Ile Val Pro Glu Trp Gln Asp Tyr Asp Gln Glu Ile
                               50                               55                               60
aaa cag cta cag atc cgc ttt cag aag gag aaa gaa acg gga gca ctg      422
Lys Gln Leu Gln Ile Arg Phe Gln Lys Glu Lys Glu Thr Gly Ala Leu
                               65                               70                               75
tac aaa gag aag aca
Tyr Lys Glu Lys Thr
80

```

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<210> 2783
<211> 420
<212> DNA
<213> Homo sapiens

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<220>
<221> CDS
<222> 184..420

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<400> 2783
gaaaaaratg agagcctgtt attggaatga gctgcctgac tcctggattt gagggaaatg      60
tctgattagt agacaggccc cagaagctgt gaggggcact cgcacgcgac caaggcacct      120
gtttccaagc agcttgctca ggatctggca taccacagtg ccaatatctg caatgtggtc      180
ctg atg cgg tac ggg gag ctg gag gaa ggg att gat gtc ctg gac agc      228
Met Arg Tyr Gly Glu Leu Glu Glu Gly Ile Asp Val Leu Asp Ser
1                               5                               10                               15
gat ggc aac ctc gtg ggc tcc tcc aag atc gca gcc cga cac gcc ctg      276
Asp Gly Asn Leu Val Gly Ser Ser Lys Ile Ala Ala Arg His Ala Leu
                               20                               25                               30
ctg gag acg gcg ctg acg cga gtg gtc ctg ccc atg ccc atc ctg gtg      324
Leu Glu Thr Ala Leu Thr Arg Val Val Leu Pro Met Pro Ile Leu Val
                               35                               40                               45
cta ccc ccg atc gtc atg tcc atg ctg gag aag acg gct ctc ctg cag      372
Leu Pro Pro Ile Val Met Ser Met Leu Glu Lys Thr Ala Leu Leu Gln
                               50                               55                               60
gma cgc ccc ccg ctg ctc ctc cct gtg caa agc ctc gtg tgc ctr gca      420
Xaa Arg Pro Arg Leu Leu Leu Pro Val Gln Ser Leu Val Cys Leu Ala
65                               70                               75

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<210> 2784
<211> 374
<212> DNA
<213> Homo sapiens

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<220>
<221> CDS
<222> 33..374

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&lt;400&gt; 2784

atattctsta cttaaaggca acaggcaggc ag atg ttg aca aag agg gct ctc 53  
 Met Leu Thr Lys Arg Ala Leu  
 1 5  
 caa aaa cca tgt tcg gat aga ttt ttg cga act gca cag ata aat agg 101  
 Gln Lys Pro Cys Ser Asp Arg Phe Leu Arg Thr Ala Gln Ile Asn Arg  
 10 15 20  
 agc aga agg ccg gtc acc tct gta acc agc ggt agc agc agc aga agc 149  
 Ser Arg Arg Pro Val Thr Ser Val Thr Ser Gly Ser Ser Ser Arg Ser  
 25 30 35  
 cgc agc ttc aga ggc agc cgg aga gac ctc gga gca gag aag gcg ccg 197  
 Arg Ser Phe Arg Gly Ser Arg Arg Asp Leu Gly Ala Glu Lys Ala Pro  
 40 45 50 55  
 gkr ccc tcg cgg ctg cct ggc ccg cgg ctc cta caa agg ccg gct agc 245  
 Xaa Pro Ser Arg Leu Pro Gly Pro Arg Leu Leu Gln Arg Arg Ala Ser  
 60 65 70  
 cgc ccg ccc tct ccc ttg cct tcc tcc cct tct ttt ctg act ttc cct 293  
 Arg Pro Pro Ser Pro Leu Pro Ser Ser Pro Ser Phe Leu Thr Phe Pro  
 75 80 85  
 ctt tcc ctt aat cgc ctg ctt ctt cct ccg ggt gga ctt acg gcc act 341  
 Leu Ser Leu Asn Arg Leu Leu Leu Pro Pro Gly Gly Leu Thr Ala Thr  
 90 95 100  
 tgc tcc tcc gcg ctt cac ctc atc gcc ccc gga 374  
 Cys Ser Ser Ala Leu His Leu Ile Ala Pro Gly  
 105 110

&lt;210&gt; 2785

&lt;211&gt; 206

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 18..206

&lt;400&gt; 2785

tgaaattgaa gaatatt atg atg gaa aca cat ctt cta att cca gac aga 50  
 Met Met Glu Thr His Leu Leu Ile Pro Asp Arg  
 1 5 10  
 gga gtg gct ggt caa gtg gtc gat cag gcc ggt cag gcc gdt cag gtg 98  
 Gly Val Ala Gly Gln Val Val Asp Gln Ala Gly Gln Ala Xaa Gln Val  
 15 20 25  
 gtc gat ctg gcg gcc ggt cag gta gac aga gtc gac aag gaa gtc gct 146  
 Val Asp Leu Ala Ala Gly Gln Val Asp Arg Val Asp Lys Glu Val Ala  
 30 35 40  
 cag gaa gtc gac aag atg gta gaa gac gaa gtg gga ata gaa atc gat 194  
 Gln Glu Val Asp Lys Met Val Glu Asp Glu Val Gly Ile Glu Ile Asp  
 45 50 55  
 caa gaa gtg ggg 206  
 Gln Glu Val Gly  
 60

**097394** - **Q642**

**097394** - **Q640**

**097394** - **Q460**

**097394** - **Q640**

**097394** - **Q640**

[illegible]

[illegible]

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<220>  
<221> CDS  
<222> 114..347
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<210> 2789
<211> 382
<212> DNA
<213> Homo sapiens
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<220>
<221> CDS
<222> 67..381
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1771

Val	Tyr	Ile	Glu	Leu	Cys	Glu	Val	Gly	Ser	Ser	Pro	Ala	Trp	Arg	Thr		
15					20				25						30		
cct	atg	ttt	aaa	gtg	aca	tca	tac	ttt	gtt	att	att	cag	gcc	aag	gtg		204
Pro	Met	Phe	Lys	Val	Thr	Ser	Tyr	Phe	Val	Ile	Ile	Gln	Ala	Lys	Val		
				35				40						45			
aca	gag	gag	tta	gca	gcg	gcc	act	gcg	cag	gtc	tct	cat	ctg	cag	ctg		252
Thr	Glu	Glu	Leu	Ala	Ala	Ala	Thr	Ala	Gln	Val	Ser	His	Leu	Gln	Leu		
			50				55				60						
aaa	atg	act	gct	cac	caa	aaa	aag	gaa	aca	gag	ctg	cag	atg	cag	ctg		300
Lys	Met	Thr	Ala	His	Gln	Lys	Lys	Glu	Thr	Glu	Leu	Gln	Met	Gln	Leu		
		65				70				75							
aca	gaa	agc	ctg	aag	gag	aca	gat	ctt	ctc	agg	ggc	cag	ctc	acc	aag		348
Thr	Glu	Ser	Leu	Lys	Glu	Thr	Asp	Leu	Leu	Arg	Gly	Gln	Leu	Thr	Lys		
	80				85					90							
tgc	agg	caa	agc	tct	cag	agc	tcc	aag	aaa	cca	t						382
Cys	Arg	Gln	Ser	Ser	Ser	Ser	Lys	Lys	Pro								
95					100				105								

<210> 2790  
 <211> 462  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 42..461

<400> 2790																	
agttganaga	ggccatcaag	atcctggaga	gcctcaagaa	c	atg	act	gtg	gag	cag								56
					Met	Thr	Val	Glu	Gln								
					1				5								
ctg	ctg	acg	ggc	tcg	ccc	acc	tct	ccg	act	gtg	gag	cct	gag	aag	cca		104
Leu	Leu	Thr	Gly	Ser	Pro	Thr	Ser	Pro	Thr	Val	Glu	Pro	Glu	Lys	Pro		
			10					15						20			
act	cgg	gag	aag	aag	ttt	ctg	gat	gac	atc	aag	aag	cta	cag	gaa	aac		152
Thr	Arg	Glu	Lys	Lys	Phe	Leu	Asp	Asp	Ile	Lys	Lys	Leu	Gln	Glu	Asn		
			25				30						35				
ctc	aag	aag	acc	ctg	gac	aat	gtg	gcc	att	gta	gag	gag	gag	aag	atg		200
Leu	Lys	Lys	Thr	Leu	Asp	Asn	Val	Ala	Ile	Val	Glu	Glu	Glu	Lys	Met		
		40				45						50					
gaa	gca	gtg	ccc	gac	gta	gag	cg	aag	gag	gac	aag	ccc	gag	ggg	cag		248
Glu	Ala	Val	Pro	Asp	Val	Glu	Arg	Lys	Glu	Asp	Lys	Pro	Glu	Gly	Gln		
	55				60					65							
tca	cct	gtg	aag	gnn	gag	tgg	ccc	agc	gaa	acc	ccg	gtg	ctg	tgc	cag		296
Ser	Pro	Val	Lys	Xaa	Glu	Trp	Pro	Ser	Glu	Thr	Pro	Val	Leu	Cys	Gln		
	70				75				80					85			
cag	tgt	ggc	ggc	aag	cct	ggc	gtc	acc	ttc	acc	agc	gcc	aag	ggc	gag		344
Gln	Cys	Gly	Gly	Lys	Pro	Gly	Val	Thr	Phe	Thr	Ser	Ala	Lys	Gly	Glu		
			90				95						100				
gtc	ttc	tcc	gta	ctg	gag	ttt	gca	ccc	tca	aat	cat	tct	ttt	aag	aaa		392
Val	Phe	Ser	Val	Leu	Glu	Phe	Ala	Pro	Ser	Asn	His	Ser	Phe	Lys	Lys		
			105				110						115				
att	gag	ttc	cag	cct	cca	gaa	gcc	aag	aag	ttc	ttc	agc	aca	gtg	cgg		440

Ile Glu Phe Gln Pro Pro Glu Ala Lys Lys Phe Phe Ser Thr Val Arg  
 120 125 130  
 arg gag atg gcg ctg ctg gct a  
 Xaa Glu Met Ala Leu Leu Ala  
 135 140

462

<210> 2791  
 <211> 337  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 13..336

<400> 2791

agcgccgccg cg atg gcg nag gac agc gag tct gcg gcc agc cag cag agc 51  
 Met Ala Xaa Asp Ser Glu Ser Ala Ala Ser Gln Gln Ser  
 1 5 10  
 ctg gaa ctg gac gac cag gac acg tgc ggg ata gac ggg gac aat gag 99  
 Leu Glu Leu Asp Asp Gln Asp Thr Cys Gly Ile Asp Gly Asp Asn Glu  
 15 20 25  
 gag gag acg gag cac gcc aaa gga agt cct gga ggg tat ttg gga gcc 147  
 Glu Glu Thr Glu His Ala Lys Gly Ser Pro Gly Gly Tyr Leu Gly Ala  
 30 35 40 45  
 aaa aag aaa aag aag aaa cag aag aga waa aag gag aaa cca aat tcc 195  
 Lys Lys Lys Lys Lys Lys Gln Lys Arg Xaa Lys Glu Lys Pro Asn Ser  
 50 55 60  
 gga ggc acc aag tca gac tcg gca tct gat tcc cag gag att aaa att 243  
 Gly Gly Thr Lys Ser Asp Ser Ala Ser Asp Ser Gln Glu Ile Lys Ile  
 65 70 75  
 cag cag cct tcg aaa aat ccc agt gtt cca atg cag aag ttg cag gat 291  
 Gln Gln Pro Ser Lys Asn Pro Ser Val Pro Met Gln Lys Leu Gln Asp  
 80 85 90  
 atc cag aga gca atg gag ctg cta tcc gca tgc cag ggc cca gcc a 337  
 Ile Gln Arg Ala Met Glu Leu Ser Ala Cys Gln Gly Pro Ala  
 95 100 105

<210> 2792  
 <211> 323  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 156..323

<400> 2792

atcttgctgg tttgcvgccg gtcttgatg aagcggcggc cgtggtgaga gcgtggggaa 60  
 ggggtggggtg agggggcgag gccgcagcta gggcggcgaa actctcctcc cctcggcccc 120  
 accgcgtggg acggcgtgaa cgtggtgtcg gaggg atg tca gcc ttc tct gag 173  
 Met Ser Ala Phe Ser Glu

004220" 666ET550

gcg gcg ctg gag aag aag ctg tcg gag ttg agc aac tcg cag cag agc	1	5	221
Ala Ala Leu Glu Lys Lys Leu Ser Glu Leu Ser Asn Ser Gln Gln Ser			
10	15	20	
gtg cag acc ttg nnn ytg tgg ctc att cac cac cgt aaa cac tcg cgt			269
Val Gln Thr Leu Xaa Leu Trp Leu Ile His His Arg Lys His Ser Arg			
25	30	35	
ccc atc gtc acc gtg tgg gag cgg gac tgc gga aag cca aac caa aca			317
Pro Ile Val Thr Val Trp Glu Arg Asp Cys Gly Lys Pro Asn Gln Thr			
40	45	50	
gga agc			323
Gly Ser			
55			

<210> 2793

<211> 321

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 156..320

<400> 2793

catcagagac tgtaagcatt aacctgggtt agtaaagtct ttgtaatttt tttcaatggc	60
tgaatacgtc aaggaaaaaa gaattgtttg aataggattg tgttaagagt cacactgagt	120
tattcaccat tattccatga ctgggttaaac ctaca atg ttt gtt cta ttt ttc	173
Met Phe Val Leu Phe Phe	

aaa aag agc aat tat aaa caa gtt ttt aaa ggg gga ctc act att cac	1	5	221
Lys Lys Ser Asn Tyr Lys Gln Val Phe Lys Gly Gly Leu Thr Ile His			
10	15	20	
cta atg agg att ctt ctt ttt gag ata aat cat ttg tat act gag aaa			269
Leu Met Arg Ile Leu Leu Phe Glu Ile Asn His Leu Tyr Thr Glu Lys			
25	30	35	
aat gag tta ttt tcc atg aga aat tct gag caa act ata gaa cac acc			317
Asn Glu Leu Phe Ser Met Arg Asn Ser Glu Gln Thr Ile Glu His Thr			
40	45	50	
cca t			321
Pro			
55			

<210> 2794

<211> 315

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 44..313

<400> 2794



<213> Homo sapiens

<220>

<221> CDS

<222> 216..407

<400> 2796

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akgcgcggtg cactgcgcgc cggcacgagg gtgttttcga cgttggtgtg ggggaaacag      60
caagcggcgt ggacgaccgt tgctgagctg gtgtggaacg tctgtgatca gattcgttgg      120
gcttttgcca gctcttttta gattgtcctc ttgagacctg tttacagagg aatggccaga      180
ggccacaggc actgcmwcct gagaccatcc acctg atg gga aga aag cta gaa      233
                               Met Gly Arg Lys Leu Glu
                               1             5
aag ccc aac cct gag aaa aat gct tgg gaa cac aac agc ctc aca att      281
Lys Pro Asn Pro Glu Lys Asn Ala Trp Glu His Asn Ser Leu Thr Ile
                               10             15             20
ccg agt cca gca tgt gct tcg gag gcc agc ctg gaa gtg act gat tta      329
Pro Ser Pro Ala Cys Ala Ser Glu Ala Ser Leu Glu Val Thr Asp Leu
                               25             30             35
ttg ctc avt gct ttg gaa aat cca gta aaa tat gct gag gac aat atg      377
Leu Leu Xaa Ala Leu Glu Asn Pro Val Lys Tyr Ala Glu Asp Asn Met
                               40             45             50
gaa caa aag gac aca gac aga att att tgt tc      409
Glu Gln Lys Asp Thr Asp Arg Ile Ile Cys
55                               60

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<210> 2797

<211> 466

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 313..465

<400> 2797

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atagcaacgg gcagccggaa gatgcggcca ttcctctccc ttttgtccat tgcatttcag      60
cagcgcgccg gcacatggac gctccaatta cagctctaga ggctagaaat tggcagtcag      120
gatgtgtgta aggccacgct ccctctgaag actccagggg aggatctttc cttgcctcct      180
ccagcttctg gtggctgcca gcaccccttg cattcccttg cctgtggaca catcactctc      240
atctctgccc atggtcacia ccccaagctc cagaatacag accagcaggc gaggagacaa      300
ggaggcaagc ag atg gat ggc gga aca aag tgg cag aga aag aga gaa gag      351
                               Met Asp Gly Gly Thr Lys Trp Gln Arg Lys Arg Glu Glu
                               1             5             10
gag aga tgt ctg gac gcc aag agg agt ctg gct ggg gcc agt cag aga      399
Glu Arg Cys Leu Asp Ala Lys Arg Ser Leu Ala Gly Ala Ser Gln Arg
                               15             20             25
aga gtc cag cgg ctg ggc agc ccg act cca ggg gaa gat cac ctt ccc      447
Arg Val Gln Arg Leu Gly Ser Pro Thr Pro Gly Glu Asp His Leu Pro
                               30             35             40             45
amt cca tcc ccc ttc acg a      466
Xaa Pro Ser Pro Phe Thr

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<210> 2798  
 <211> 367  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 43..366

<400> 2798

atcscgtgcgc cgggwtgga gaggcttact ctctcctgcg tg atg ctg cag ctg 54  
 Met Leu Gln Leu  
 1  
 ctg gga tgc cag gag ggg aac cgc ctg agg aaa gtg ctg wga gaa aag 102  
 Leu Gly Cys Gln Glu Gly Asn Arg Leu Arg Lys Val Leu Xaa Glu Lys  
 5 10 15 20  
 aga kgg agg gat aca gaa ccg ggc cca gat gag ttt gcg ctg aat ctg 150  
 Arg Xaa Arg Asp Thr Glu Pro Gly Pro Asp Glu Phe Ala Leu Asn Leu  
 25 30 35  
 aag tcg gta ggt ccc tgg aca ttt cta tta tgg aag cca aga aga acc 198  
 Lys Ser Val Gly Pro Trp Thr Phe Leu Leu Trp Lys Pro Arg Arg Thr  
 40 45 50  
 tcc cct cca ccc tct gaa gcc agt gtg gat cgg gtt tct ggc act tgc 246  
 Ser Pro Pro Pro Ser Glu Ala Ser Val Asp Arg Val Ser Gly Thr Cys  
 55 60 65  
 agt gtc tgc acg gtc tcc tct cct tcc ttc tcc att gcc ctt tct cam 294  
 Ser Val Cys Thr Val Ser Ser Pro Ser Phe Ser Ile Ala Leu Ser Xaa  
 70 75 80  
 ccg cct ggg ccc gcc acc ctg aac tac cgg gac aca tgc tgt tcc tgc 342  
 Pro Pro Gly Pro Ala Thr Leu Asn Tyr Arg Asp Thr Cys Cys Ser Cys  
 85 90 95 100  
 mtc car gcg tgc act tct tcc tgc a 367  
 Xaa Gln Ala Cys Thr Ser Ser Cys  
 105

<210> 2799  
 <211> 253  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 36..251

<400> 2799

cttttggggt tcgctgtttc ttccctctct gctgg atg ctg tct tgc ccc tgg 53  
 Met Leu Ser Cys Pro Trp  
 1 5  
 ttt ccc cta tcc tgt tct ccc tcc ttg cct ctg agc atc cca gac tgc 101  
 Phe Pro Leu Ser Cys Ser Pro Ser Leu Pro Leu Ser Ile Pro Asp Cys

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	10		15		20	
ctg cct gcc ttc ctc tgg ccg ctg ggg ata ccc tgg cct gat gga gag						149
Leu Pro Ala Phe Leu Trp Pro Leu Gly Ile Pro Trp Pro Asp Gly Glu						
	25		30		35	
ggt cta aga cct tcc cgt ctt ctc cgg aca cgg gaa aac att acc cct						197
Gly Leu Arg Pro Ser Arg Leu Leu Arg Thr Arg Glu Asn Ile Thr Pro						
	40		45		50	
ctc tct tta ttc gct atg ctg agt ggc agg gag ggt gcc ccg ctc ctg						245
Leu Ser Leu Phe Ala Met Leu Ser Gly Arg Glu Gly Ala Pro Leu Leu						
55		60		65	70	
gtc ccc ct						253
Val Pro						

<210> 2800  
 <211> 390  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 235..390

<400> 2800	
agtgtgggga tgggtggcaga tactctggct gctacgtgag aacagtgtgc cgatccctgg	60
ggtttctcaa ggcgtggcac ctcacctcac acctgctccc tgctgctgag cccacgcca	120
agctggagag cggatgagaa gcatgtgtaa ccagggtaga ggctgagagt cctctcgtgg	180
gggtctccat gttcaaggga gctgccgagg cttgagcagg agcccccagc aggc atg	237
	Met
	1
aac gct gct gtc cgg gct gtg acg cgc atg ggc ann tat gtg ggt gcc	285
Asn Ala Ala Val Arg Ala Val Thr Arg Met Gly Xaa Tyr Val Gly Ala	
	5
	10
	15
aaa gtc ttc ctc atc tac gag ggc tat gag ggc ctc gtg gag gga ggt	333
Lys Val Phe Leu Ile Tyr Glu Gly Tyr Glu Gly Leu Val Glu Gly Gly	
	20
	25
	30
gag aac atc aag cag gcc aac tgg ctg agc gtc tcc aac atc atc cag	381
Glu Asn Ile Lys Gln Ala Asn Trp Leu Ser Val Ser Asn Ile Ile Gln	
	35
	40
	45
ctg ggc gta	390
Leu Gly Val	
50	

<210> 2801  
 <211> 269  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 39..269

<400> 2801

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atatccggtg tccgcccgcc ctcggctcct ccgccgtg atg ctg tcc cga tcc cgc      56
                                   Met Leu Ser Arg Ser Arg
                                   1      5
tgt gtg tct cgg gcg ttc agc cgc tcg ctc tcc gcc ttc cag aag ggg      104
Cys Val Ser Arg Ala Phe Ser Arg Ser Leu Ser Ala Phe Gln Lys Gly
                                   10      15      20
aac tgc cct cta ggg aga cgt tcc ctg cct ggg gtc tcc tta tgc cag      152
Asn Cys Pro Leu Gly Arg Arg Ser Leu Pro Gly Val Ser Leu Cys Gln
                                   25      30      35
gga cca ggt tac cct aac agc agg aag gtt gtc att aac aac agt gtc      200
Gly Pro Gly Tyr Pro Asn Ser Arg Lys Val Val Ile Asn Asn Ser Val
                                   40      45      50
ttc agt gtt cgc ttt ttc aga act aca gct gta tgc aag gat gac ttg      248
Phe Ser Val Arg Phe Phe Arg Thr Thr Ala Val Cys Lys Asp Asp Leu
55      60      65      70
gtt aca gtc aaa acc cca gca
Val Thr Val Lys Thr Pro Ala
                                   75
<210> 2802
<211> 397
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 63..395

<400> 2802
acaagaatca cagtgcattg ataacaagtg tagtccctgg ggattatgat ggagattctc      60
aa atg gat gtc ctt ctg aca tat ctt ccc aaa aat tat gcc aag agt      107
Met Asp Val Leu Leu Thr Tyr Leu Pro Lys Asn Tyr Ala Lys Ser
1      5      10      15
gaa tta gra gct gtt atc ttc tgg aga caa aat caa aca tta gat cct      155
Glu Leu Xaa Ala Val Ile Phe Trp Arg Gln Asn Gln Thr Leu Asp Pro
                                   20      25      30
aac aat atg acc ata ctc aat agg act ttt caa gat gag cca cta att      203
Asn Asn Met Thr Ile Leu Asn Arg Thr Phe Gln Asp Glu Pro Leu Ile
                                   35      40      45
atg gat ttc aat ggt gat cta att cct gat att ttt ggt atc aca aat      251
Met Asp Phe Asn Gly Asp Leu Ile Pro Asp Ile Phe Gly Ile Thr Asn
50      55      60
gaa tcc aac cag cca cag ata cta tta gga ggg aat tta tca tgg cat      299
Glu Ser Asn Gln Pro Gln Ile Leu Leu Gly Gly Asn Leu Ser Trp His
65      70      75
cca gca ttg acc act aca agt aaa atg cga att cca cat tct cat gca      347
Pro Ala Leu Thr Thr Thr Ser Lys Met Arg Ile Pro His Ser His Ala
80      85      90      95
ttt att gat ctg act gaa gat ttt aca gca gat tta ttc ctg acg aaa      395
Phe Ile Asp Leu Thr Glu Asp Phe Thr Ala Asp Leu Phe Leu Thr Lys
100      105      110
gc
                                   110
397

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<210> 2803  
 <211> 244  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 72..242

<400> 2803  
 taagtattat actaattccc acatatgacg atttgatttc ctctgttctc tactattggt 60  
 ctgtttatca t atg atc aat ttt aca cca tct tta ctg cca ttc ttt atg 110  
                   Met Ile Asn Phe Thr Pro Ser Leu Leu Pro Phe Phe Met  
                   1                  5                  10  
 tct tat agg gaa aat cct ctt gga tcc cca ttg tgt atg tct gta aag 158  
 Ser Tyr Arg Glu Asn Pro Leu Gly Ser Pro Leu Cys Met Ser Val Lys  
                   15                  20                  25  
 ttt tat tta ctt tca cag cac tct cat act ttt gta cyc waa ctk gtt 206  
 Phe Tyr Leu Leu Ser Gln His Ser His Thr Phe Val Xaa Xaa Leu Val  
                   30                  35                  40                  45  
 ttk gga tca cac aca cct gmr gac aca gag aca cac mc 244  
 Xaa Gly Ser His Thr Pro Xaa Asp Thr Glu Thr His  
                   50                  55

<210> 2804  
 <211> 295  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 41..295

<400> 2804  
 agtttgctct ctgtgtcttt ttcctgccac tgagtaaggg atg atc ttc aca cac 55  
   Met Ile Phe Thr His  
   1                  5  
 atg ccc cac tcc gcc ccc atc tcg gcg cac cgt ttc tcc agg aag gta 103  
 Met Pro His Ser Ala Pro Ile Ser Ala His Arg Phe Ser Arg Lys Val  
                   10                  15                  20  
 agg ggg ctg ccc acg ctg atc ccc ttc gtg act aca ggt gcc cag agc 151  
 Arg Gly Leu Pro Thr Leu Ile Pro Phe Val Thr Thr Gly Ala Gln Ser  
                   25                  30                  35  
 cta cgg aat agt ccg gtt gtt gta atg aca gcg ggg tca gag gga ggc 199  
 Leu Arg Asn Ser Pro Val Val Val Met Thr Ala Gly Ser Glu Gly Gly  
                   40                  45                  50  
 gag gga tca cag cct cga gtc tcg gga cgc aaa gcc cag cag ggc tct 247  
 Glu Gly Ser Gln Pro Arg Val Ser Gly Arg Lys Ala Gln Gln Gly Ser  
                   55                  60                  65  
 ctg cgg ctc agg gcc agc tgg aga gta gag aaa aag gct gcc gaa gac 295  
 Leu Arg Leu Arg Ala Ser Trp Arg Val Glu Lys Lys Ala Ala Glu Asp  
                   70                  75                  80                  85

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<210> 2805  
 <211> 410  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 135..410

<400> 2805  
 agctgatccc gcggacccac tgggttgcca agctcgcgcc ggatgcggag gcggtgctgc 60  
 cgggtggagct tcaggtcttg atagactttc tgtaaagaag gaatgatttg gtgatggagt 120  
 gttcccactg accg atg gac tca aag aag aga agc tca aca gag gca gaa 170  
                   1                  5                  10  
                   Met Asp Ser Lys Lys Arg Ser Ser Thr Glu Ala Glu  
 gga tcc aag gaa aga ggc ctg gtc cat atc tgg cag gca gga tcc ttt 218  
 Gly Ser Lys Glu Arg Gly Leu Val His Ile Trp Gln Ala Gly Ser Phe  
                   15                  20                  25  
 ccc ata aca cca gag aga ttg cca ggc tgg gga gga aag act gtw ttg 266  
 Pro Ile Thr Pro Glu Arg Leu Pro Gly Trp Gly Gly Lys Thr Val Leu  
                   30                  35                  40  
 cag gca gcc ctc gga gtg aaa cat gga gtt ctt ctg act gaa gat ggt 314  
 Gln Ala Ala Leu Gly Val Lys His Gly Val Leu Leu Thr Glu Asp Gly  
                   45                  50                  55                  60  
 gag gtc tac agc ttt ggg act ctt ccc tgg aga agt gga cca gtg gag 362  
 Glu Val Tyr Ser Phe Gly Thr Leu Pro Trp Arg Ser Gly Pro Val Glu  
                   65                  70                  75  
 att tgt cca agt agc ccc att cta gaa aat gcc ctg gtt ggg caa tat 410  
 Ile Cys Pro Ser Ser Pro Ile Leu Glu Asn Ala Leu Val Gly Gln Tyr  
                   80                  85                  90

<210> 2806  
 <211> 361  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 77..361

<400> 2806  
 tgagatgcga tgctgacgga ggagctacag cagactgtct tgagttcttc ttgaattgcc 60  
 agttttcagc ctcttc atg cct ccg tct cct tta gac gac agg gta gta gtg 112  
                   1                  5                  10  
                   Met Pro Pro Ser Pro Leu Asp Asp Arg Val Val Val  
 gca cta tct agg ccc gtc cga cct cag gat ctc aac ctt tgt tta gac 160  
 Ala Leu Ser Arg Pro Val Arg Pro Gln Asp Leu Asn Leu Cys Leu Asp  
                   15                  20                  25  
 tct agt tac ctt ggc tct gcc aac cca ggc agt aac agc cac cct cct 208  
 Ser Ser Tyr Leu Gly Ser Ala Asn Pro Gly Ser Asn Ser His Pro Pro  
                   30                  35                  40



<400> 2808

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atcaccatgg ccagctatcc ttaccggcag ctctgtccca a atg ggc tac aac ctg      56
                                     Met Gly Tyr Asn Leu
                                     1           5
agc ccc cag ttc acc cag ctt ctg gtc tcc cgc tac tgc cca cgc tct      104
Ser Pro Gln Phe Thr Gln Leu Leu Val Ser Arg Tyr Cys Pro Arg Ser
                                     10           15           20
gcc aat cct gcc atg cag ctt gac cgc ttc atc cag gtg tgc acc cag      152
Ala Asn Pro Ala Met Gln Leu Asp Arg Phe Ile Gln Val Cys Thr Gln
                                     25           30           35
ctg cag gtg ctg aca gag gcc ttc cgg gag aag gac aca gct gta caa      200
Leu Gln Val Leu Thr Glu Ala Phe Arg Glu Lys Asp Thr Ala Val Gln
                                     40           45           50
ggc aac ggt
Gly Asn Gly
                                     55
                                     209
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<210> 2809

<211> 315

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 79..315

<400> 2809

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atcaagaatt gtttttagaaa gacaatattt rraacaccgc actgccaata tattgatcct      60
ttatagttat ttctctaaa atg ctg ttt tcg aaa cat tcc ttt ttc acc ctg      111
                                     Met Leu Phe Ser Lys His Ser Phe Phe Thr Leu
                                     1           5           10
ktg tgt ggc tta gac cca tct cgt aat ctg tta att gga aag agg cta      159
Xaa Cys Gly Leu Asp Pro Ser Arg Asn Leu Leu Ile Gly Lys Arg Leu
                                     15           20           25
cag aca cca gca gtg tgc gtt ctg cag gta cac gct gcc aaa gtr rkk      207
Gln Thr Pro Ala Val Cys Val Leu Gln Val His Ala Ala Lys Val Xaa
                                     30           35           40
cct gct cat cca tgc cct gtc tct gtc tct ttt aga gtc ata cct tat      255
Pro Ala His Pro Cys Pro Val Ser Val Ser Phe Arg Val Ile Pro Tyr
                                     45           50           55
ttg agt ata ggk kgc tta att ttg cta gac ttc ctg aaa aca cta agg      303
Leu Ser Ile Gly Xaa Leu Ile Leu Leu Asp Phe Leu Lys Thr Leu Arg
60           65           70           75
tgg agt atc aga
Trp Ser Ile Arg
                                     315
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<210> 2810

<211> 272

<212> DNA

<213> Homo sapiens

<220>  
 <221> CDS  
 <222> 61..270

<400> 2810  
 aagcagagcc caccatcgt gaagatcctg aagtttggtt gggtcccaat catcctggcc 60  
 atg gtc atc agc agt ttc gga gga ctc atc ttg agc aaa acc gtt tct 108  
 Met Val Ile Ser Ser Phe Gly Gly Leu Ile Leu Ser Lys Thr Val Ser  
 1 5 10 15  
 aaa cas crg tac aaa ggc atg gcg ata ttt acc ccc gtc ata tgt ggt 156  
 Lys Xaa Xaa Tyr Lys Gly Met Ala Ile Phe Thr Pro Val Ile Cys Gly  
 20 25 30  
 gtt ggt ggc aat ctg gtg gcc att cag acc agc cga atc tca acc tac 204  
 Val Gly Gly Asn Leu Val Ala Ile Gln Thr Ser Arg Ile Ser Thr Tyr  
 35 40 45  
 ctg cac atg tgg agt gca cct ggc gtc ctg ccc ctc cag atg aag aaa 252  
 Leu His Met Trp Ser Ala Pro Gly Val Leu Pro Leu Gln Met Lys Lys  
 50 55 60  
 ttc tgg ccc aac ccg tgt tc 272  
 Phe Trp Pro Asn Pro Cys  
 65 70

<210> 2811  
 <211> 237  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 73..237

<400> 2811  
 gtcttctccc atcacatcag tgctccctgt cttgacatcc tgctttattt tttcaacaga 60  
 gcacatatca cc atg aga aat cag cat gag aag atg atc aaa att cat ata 111  
 Met Arg Asn Gln His Glu Lys Met Ile Lys Ile His Ile  
 1 5 10  
 ttg ara cat gar aag gct ctg aat ggg ttg gat gat gcc ctc cca tat 159  
 Leu Xaa His Glu Lys Ala Leu Asn Gly Leu Asp Asp Ala Leu Pro Tyr  
 15 20 25  
 tgc ggt ggc caa tat gct tta ctc agt cta cag att caa atg cta atc 207  
 Cys Gly Gly Gln Tyr Ala Leu Leu Ser Leu Gln Ile Gln Met Leu Ile  
 30 35 40 45  
 tct tct gga aac aaa ctc aca gac aca cct 237  
 Ser Ser Gly Asn Lys Leu Thr Asp Thr Pro  
 50 55

<210> 2812  
 <211> 478  
 <212> DNA  
 <213> Homo sapiens

<220>



<221> CDS  
<222> 154..477

<400> 2812

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attcgcatgtg csyttctgtg attattctcc ctggcttgcg ttctgaagca cgaatctttc      60
cggatgtagt aactggcttc ctaaagcttt ggggggactg tggccccga agctgccggc      120
tgcctgacct aagatttacg agtgggtcca agg atg aga caa ggt ccc agt gtc      174
                               Met Arg Gln Gly Pro Ser Val
                               1           5
tcg gtg aca aca ggg tct ttg acg aac ggc tgc cga gtt gca gct ggg      222
Ser Val Thr Thr Gly Ser Leu Thr Asn Gly Cys Arg Val Ala Ala Gly
      10           15           20
gag ggg gaa gag gac tgt ggc hng ggc ggg gag ccc ctg vvt ttc ttc      270
Glu Gly Glu Glu Asp Cys Gly Xaa Gly Gly Glu Pro Leu Xaa Phe Phe
      25           30           35
ctt gta gga vwt ggg cgc cgg ggc acg ggc agg cag ccc cgc agg cca      318
Leu Val Gly Xaa Gly Arg Arg Gly Thr Gly Arg Gln Pro Arg Arg Pro
      40           45           50           55
tca gca tgc agg agc ggc gcg ccg tcc ttg aar ggc tgc ccg gmt gac      366
Ser Ala Cys Arg Ser Gly Ala Pro Ser Leu Lys Gly Cys Pro Xaa Asp
      60           65           70
ctt gct ccg ctt tct cgg gag aaa tcg cta gga gag cgc gas gac gcg      414
Leu Ala Pro Leu Ser Arg Glu Lys Ser Leu Gly Glu Arg Xaa Asp Ala
      75           80           85
gcc acg atg gtg act cag tgc cct gcg cgc cgc acg caa atg ctc cct      462
Ala Thr Met Val Thr Gln Cys Pro Ala Arg Arg Thr Gln Met Leu Pro
      90           95           100
tcc atc aag tcc agc t
Ser Ile Lys Ser Ser      478
      105

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<210> 2813  
<211> 293  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 25..291

<400> 2813

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aaatttagca accatttatc atgg atg aaa gag atc tgt aaa acc tgc cca      51
                               Met Lys Glu Ile Cys Lys Thr Cys Pro
                               1           5
gga act tac aga att tac ttt gca gaa gcg tta tca tac tcc att tac      99
Gly Thr Tyr Arg Ile Tyr Phe Ala Glu Ala Leu Ser Tyr Ser Ile Tyr
      10           15           20           25
atc tgt gtt aca cgt gat ctg ctt acc aag cat att agg aaa tac ctc      147
Ile Cys Val Thr Arg Asp Leu Leu Thr Lys His Ile Arg Lys Tyr Leu
      30           35           40
tta gga agc att agc ggt ctc agg cca att act gtg gag cag ctt tca      195
Leu Gly Ser Ile Ser Gly Leu Arg Pro Ile Thr Val Glu Gln Leu Ser

```

	45		50		55	
ttc cta ccc act tgc aaa cct tgg cgc tgt tgt ctg aga ttg ctg cag						243
Phe Leu Pro Thr Cys Lys Pro Trp Arg Cys Cys Leu Arg Leu Leu Gln						
	60		65		70	
cca ttc ttg tta cca tgg tac ttc tca aac ttt gtg aaa acc tgc act						291
Pro Phe Leu Leu Pro Trp Tyr Phe Ser Asn Phe Val Lys Thr Cys Thr						
	75		80		85	
tt						293

<210> 2814  
 <211> 264  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 23..262

<400> 2814	
atcgttcaag acagaaaagg cc atg aag aat cac gag aag tca aag aag cat	52
	Met Lys Asn His Glu Lys Ser Lys Lys His
	1 5 10
cgg gaa atg gtg gcc ttg cta aaa caa cag ctg gag gag gaa gaa gaa	100
Arg Glu Met Val Ala Leu Leu Lys Gln Gln Leu Glu Glu Glu Glu Glu	
	15 20 25
aat ttt tca aga cct caa att gat gaa aat cca tta gat gac aat tct	148
Asn Phe Ser Arg Pro Gln Ile Asp Glu Asn Pro Leu Asp Asp Asn Ser	
	30 35 40
gag gaa gaa atg gaa gat gca cca aaa caa aaa gtc aag tat ttg aca	196
Glu Glu Glu Met Glu Asp Ala Pro Lys Gln Lys Val Lys Tyr Leu Thr	
	45 50 55
ttt cga ttt ata ttt gct ctt agg ctt tct aaa aaa cag aag aaa aag	244
Phe Arg Phe Ile Phe Ala Leu Arg Leu Ser Lys Lys Gln Lys Lys Lys	
	60 65 70
aaa cag aaa cca gca cag aa	264
Lys Gln Lys Pro Ala Gln	
	75 80

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 <212> DNA  
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 <222> 19..294

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	Met Lys Asn Asn His Ser Lys Ser Gly Thr Ser
	1 5 10
acc tta aga ttg cta aca aca ata ttg cat agt gat gga gac ttg aca	99

004220"666E7560

Thr	Leu	Arg	Leu	Leu	Thr	Thr	Ile	Leu	His	Ser	Asp	Gly	Asp	Leu	Thr		
			15					20				25					
gaa	cag	ggg	aaa	att	agt	aaa	cca	gat	atg	tca	cgt	ctg	aga	ctt	gct		147
Glu	Gln	Gly	Lys	Ile	Ser	Lys	Pro	Asp	Met	Ser	Arg	Leu	Arg	Leu	Ala		
		30					35				40						
gct	ggg	agt	gct	att	gtg	aag	ctg	gca	caa	gaa	ccc	tgt	tac	cat	gaa		195
Ala	Gly	Ser	Ala	Ile	Val	Lys	Leu	Ala	Gln	Glu	Pro	Cys	Tyr	His	Glu		
	45					50				55							
atc	atc	aca	tta	gaa	caa	tat	cag	cta	tgt	gca	tta	gct	atc	aac	gat		243
Ile	Ile	Thr	Leu	Glu	Gln	Tyr	Gln	Leu	Cys	Ala	Leu	Ala	Ile	Asn	Asp		
60					65				70					75			
gaa	tgc	tat	caa	gta	aga	caa	gtg	ttt	gcc	cag	aaa	ctt	cac	aaa	ggc		291
Glu	Cys	Tyr	Gln	Val	Arg	Gln	Val	Phe	Ala	Gln	Lys	Leu	His	Lys	Gly		
			80					85					90				
caa	a																295
Gln																	

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gaa	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	120
ctg	t	g	t	g	g	c	c	t	c	t	c	t	c	t	c	c	180
cct	g	t	g	g	c	c	t	c	t	c	c	t	c	c	t	c	229
Met	Pro	Gly	Ala	Pro	Cys	Ser	Gln	Ala	Gly	Gln	Glu	Gly	Arg	Cys			
1				5				10					15				
cct	gca	caa	ggc	ctg	tgg	tat	gtt	ttc	acc	ggg	gcc	acc	agc	ggc	agg	277	
Pro	Ala	Gln	Gly	Leu	Trp	Tyr	Val	Phe	Thr	Gly	Ala	Thr	Ser	Gly	Arg		
			20					25				30					
ggc	agg	gac	agg	ctg	gcc	aac	tca	aaa	gaa	gcc	agg	agt	gag	ang	gtt	325	
Gly	Arg	Asp	Arg	Leu	Ala	Asn	Ser	Lys	Glu	Ala	Arg	Ser	Glu	Xaa	Val		
		35				40					45						
tgc	ttc	tcc	ttt	cct	tcc	aag	agc	act	gga	aaa	ctg	gaa	gga	agt	cca	373	
Cys	Phe	Ser	Phe	Pro	Ser	Lys	Ser	Thr	Gly	Lys	Leu	Glu	Gly	Ser	Pro		
	50					55					60						
aa																375	

<210> 2817  
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<220>  
 <221> CDS  
 <222> 173..334

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aatacatcat gaactgcagg ttgtggaaga aggactctgg gaaaatggcc tttcctatga 120  
atgtaggacg ctgctcttca aagcgatcca caatctgtta gaaaggtgcc ta atg gat 178  
Met Asp

1  
aag aac ttc gtt agg att ggg aaa tgg ttt gtc cga ccc tac gaa aag 226  
Lys Asn Phe Val Arg Ile Gly Lys Trp Phe Val Arg Pro Tyr Glu Lys  
5 10 15  
gat gaa aag cca gtc aac aaa agt gag cat ttg tcc tgt gct ttc aca 274  
Asp Glu Lys Pro Val Asn Lys Ser Glu His Leu Ser Cys Ala Phe Thr  
20 25 30  
ttc ttt ctg cat gga gaa agt aat gta tgc aca agt gtg gag att gcc 322  
Phe Phe Leu His Gly Glu Ser Asn Val Cys Thr Ser Val Glu Ile Ala  
35 40 45 50  
cca gca cca gtg ca 336  
Pro Ala Pro Val

<210> 2818

<211> 351

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 188..349

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gccgagtcct ggaagcggas tccgcgctgg gactgggtcc ttcgcagcca ttttctgtcc 60  
aaccaaacag ccgattggag acgggagcca accagggctg cattggaggt tgaaatcaca 120  
aagattagac accttttttag ataggtgttc ttcagcacca ctgacaacac ggttctgaca 180  
gtatttc atg aca atg gat ggt gac agt tct aca aca gat gct tct caa 229  
Met Thr Met Asp Gly Asp Ser Ser Thr Thr Asp Ala Ser Gln  
1 5 10  
cta gga atc tct gca gac tak rtt gga gga agt cat tat gtt ata cag 277  
Leu Gly Ile Ser Ala Asp Xaa Xaa Gly Gly Ser His Tyr Val Ile Gln  
15 20 25 30  
cct cat gat gat act gag gac agc atg aat gat cat gaa gac acr rat 325  
Pro His Asp Asp Thr Glu Asp Ser Met Asn Asp His Glu Asp Thr Xaa  
35 40 45  
ggg tca aaa gam agt ttc aga gaa tt 351  
Gly Ser Lys Xaa Ser Phe Arg Glu  
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<210> 2819

<211> 353

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 89..352

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 cggtggcctc ggtcccggta agccaggc atg aag atc aca agg cag aaa cat 112  
 Met Lys Ile Thr Arg Gln Lys His

1

5

gcc aag aag cat ctt ggc ttc ttc cgc aac aac ttc gga gtc cgc gag 160  
 Ala Lys Lys His Leu Gly Phe Phe Arg Asn Asn Phe Gly Val Arg Glu  
 10 15 20

ccg tac cag atc ctg ctg gac ggc acc ttc tgt cag gcg gcg ctg cgg 208  
 Pro Tyr Gln Ile Leu Leu Asp Gly Thr Phe Cys Gln Ala Ala Leu Arg  
 25 30 35 40

ggc cgc atc cag ctg cgg gag cas tgc ncc cgc tac ctc atg ggg gag 256  
 Gly Arg Ile Gln Leu Arg Glu Xaa Cys Xaa Arg Tyr Leu Met Gly Glu  
 45 50 55

acg cag ctg tgc acc aca agg aaa ctg gat ata gga ttt cgt tgc aac 304  
 Thr Gln Leu Cys Thr Thr Arg Lys Leu Asp Ile Gly Phe Arg Cys Asn  
 60 65 70

gct att aaa gtt cca aac cag gag tgt gca gca ctg gaa aag gag atc a 353  
 Ala Ile Lys Val Pro Asn Gln Glu Cys Ala Ala Leu Glu Lys Glu Ile  
 75 80 85

&lt;210&gt; 2820

&lt;211&gt; 415

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 69..413

&lt;400&gt; 2820

ataggactgg atatgcgaat gtcaccatat ataaaaaaca atcagattgc aatgttccag 60  
 attattttg atg tat tca aca gta tct gga tca gaa aaa aat tcc aaa att 110  
 Met Tyr Ser Thr Val Ser Gly Ser Glu Lys Asn Ser Lys Ile

1

5

10

tat tgt cct acc att gac ctc tac aac tgg aca gca cct ctt gag tgg 158  
 Tyr Cys Pro Thr Ile Asp Leu Tyr Asn Trp Thr Ala Pro Leu Glu Trp  
 15 20 25 30

ttt aag aat tgt cag gct ctt caa gga tca agg tac agg gcg cac aag 206  
 Phe Lys Asn Cys Gln Ala Leu Gln Gly Ser Arg Tyr Arg Ala His Lys  
 35 40 45

tca ttt ttg gtc att gat aat gtg atg act gag gac gca ggt gat tac 254  
 Ser Phe Leu Val Ile Asp Asn Val Met Thr Glu Asp Ala Gly Asp Tyr  
 50 55 60

acc tgt aaa ttt ata cac aat gaa aat gga gcc aat tat agt gtg acg 302  
 Thr Cys Lys Phe Ile His Asn Glu Asn Gly Ala Asn Tyr Ser Val Thr  
 65 70 75

gcg acc agg tcc ttc acg gtc aag gat gag caa ggc ttt tct ctg ttt 350  
 Ala Thr Arg Ser Phe Thr Val Lys Asp Glu Gln Gly Phe Ser Leu Phe  
 80 85 90

cca gta atc gga gcc cct gca caa aat gaa ata aag gaa gtg gaa att 398

Pro Val Ile Gly Ala Pro Ala Gln Asn Glu Ile Lys Glu Val Glu Ile  
 95 100 105 110  
 gga aaa aac gca aac ct  
 Gly Lys Asn Ala Asn  
 115

415

<210> 2821  
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 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 38..331

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 Met Met Pro Gln Ser Leu  
 1 5  
 ggc gtc atc gga ggg aag ccc aac agc gcc cac tac ttc atc ggc tac 103  
 Gly Val Ile Gly Gly Lys Pro Asn Ser Ala His Tyr Phe Ile Gly Tyr  
 10 15 20  
 gtt ggt gag gag ctc atc tac ctg gac ccc cac acc acg cag cca gcc 151  
 Val Gly Glu Glu Leu Ile Tyr Leu Asp Pro His Thr Thr Gln Pro Ala  
 25 30 35  
 gtg gag ccc act gat ggc tgc ttc atc ccg gac gag agc ttc cac tgc 199  
 Val Glu Pro Thr Asp Gly Cys Phe Ile Pro Asp Glu Ser Phe His Cys  
 40 45 50  
 cag cac ccg ccg tgc cgc atg agc atc gcg mag ttg acc cgt cca tgc 247  
 Gln His Pro Pro Cys Arg Met Ser Ile Ala Xaa Leu Thr Arg Pro Ser  
 55 60 65 70  
 ctg tgg ggt ttt tct gta aga ctg aag atg act tca atg att ggt gcc 295  
 Leu Trp Gly Phe Ser Val Arg Leu Lys Met Thr Ser Met Ile Gly Ala  
 75 80 85  
 agc aag tsa aaa agc tgt mtc tgc ttg gag gtc ccc 331  
 Ser Lys Xaa Lys Ser Cys Xaa Cys Leu Glu Val Pro  
 90 95

<210> 2822  
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 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 137..325

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 cttgtggtgg acattctcaa gcaagtcatt ctggctccgc actacaggac gtcgggactg 120  
 ggcatttctt tccaac atg gcc gcc act gcc tct ccg cag cca ctc gcc act 172  
 Met Ala Ala Thr Ala Ser Pro Gln Pro Leu Ala Thr

				1				5					10				
gag	gat	gcc	gat	tct	gag	aat	agc	agc	ttc	tat	tac	tat	gac	tac	ctg		220
Glu	Asp	Ala	Asp	Ser	Glu	Asn	Ser	Ser	Phe	Tyr	Tyr	Tyr	Asp	Tyr	Leu		
		15					20					25					
gat	gaa	gtg	gcc	ttc	atg	ctc	tgc	agg	aag	gat	gca	gtg	gtg	tcc	ttt		268
Asp	Glu	Val	Ala	Phe	Met	Leu	Cys	Arg	Lys	Asp	Ala	Val	Val	Ser	Phe		
		30				35				40							
ggs	aaa	gtc	ttc	ctc	cca	gtc	ttc	tat	agc	ctg	att	ttt	gtg	ttg	ggc		316
Gly	Lys	Val	Phe	Leu	Pro	Val	Phe	Tyr	Ser	Leu	Ile	Phe	Val	Leu	Gly		
45					50				55				60				
ctc	agc	ggg	at														327
Leu	Ser	Gly															

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	Met	Lys	Gly	Arg	Glu	Arg	Ser	His	Val	Ser	Val	Pro	Gln	Thr			
	1				5				10								
gag	tca	cgt	ggc	agt	agg	aga	ctg	cta	ggc	gcc	agg	aac	caa	ggc	tca		97
Glu	Ser	Arg	Gly	Ser	Arg	Arg	Leu	Leu	Gly	Ala	Arg	Asn	Gln	Gly	Ser		
15					20				25				30				
agc	tta	ggt	cta	agc	atg	aac	tgg	agc	agg	aac	gct	tcg	ccc	ttt	gga		145
Ser	Leu	Gly	Leu	Ser	Met	Asn	Trp	Ser	Arg	Asn	Ala	Ser	Pro	Phe	Gly		
			35					40					45				
atg	tgt	gtg	gac	aag	aat	gtg	agc	aga	aag	ttt	gcc	gac	ccc	tgc	tcc		193
Met	Cys	Val	Asp	Lys	Asn	Val	Ser	Arg	Lys	Phe	Ala	Asp	Pro	Cys	Ser		
		50					55					60					
agg	tta	gag	aag	agc	aac	a											212
Arg	Leu	Glu	Lys	Ser	Asn												
		65															

<210> 2824  
 <211> 371  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 183..371

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ctccaaagtg	gccagattct	ggttcaagtt	cagaagaaga	atgtactact	agttatttaa												120
cattatgcaa	tgaatatggg	caagaaaaga	ttgaaccagg	gtctttgaat	gaggagccct												180

tc atg aag act gaa ggg aat ggt gtt gat aca aaa gct att aaa agc	227
Met Lys Thr Glu Gly Asn Gly Val Asp Thr Lys Ala Ile Lys Ser	
1 5 10 15	
ttc cca gca cac ctt gct gct gac agt gac agc ccc agc aca cag ctg	275
Phe Pro Ala His Leu Ala Ala Asp Ser Asp Ser Pro Ser Thr Gln Leu	
20 25 30	
aga gct cac gag ctg aag ttc ttc ccc aac gat gac cca gaa gca gtg	323
Arg Ala His Glu Leu Lys Phe Phe Pro Asn Asp Asp Pro Glu Ala Val	
35 40 45	
agt tct cca aga aca tca gat tcc ctc agt aga tca aaa aat agc ccc	371
Ser Ser Pro Arg Thr Ser Asp Ser Leu Ser Arg Ser Lys Asn Ser Pro	
50 55 60	

<210> 2825  
 <211> 386  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 113..385

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ctcctttcac ttagaaatgt tggcacacca gttaacttcc gagtagtgca gt atg tta	118
Met Leu	
1	
tat gtc aca cta ctg act tta ttt aat ttc cag ctc cta tac cat tta	166
Tyr Val Thr Leu Leu Thr Leu Phe Asn Phe Gln Leu Leu Tyr His Leu	
5 10 15	
gaa aga rag ara aac aag aaa aag aca aag atg atc tgg ggc ctg aca	214
Glu Arg Xaa Xaa Asn Lys Lys Lys Thr Lys Met Ile Trp Gly Leu Thr	
20 25 30	
gat tct caa cac tca cag atg atc cca gcc cta gac tca gtg cac aag	262
Asp Ser Gln His Ser Gln Met Ile Pro Ala Leu Asp Ser Val His Lys	
35 40 45 50	
ctc agg tgg ctg agg ata ttc tgg aca aat aca gga atg cca tta aac	310
Leu Arg Trp Leu Arg Ile Phe Trp Thr Asn Thr Gly Met Pro Leu Asn	
55 60 65	
gga cca gcc cca gtg atg gag caa tgg caa act atg aaa gta cag aga	358
Gly Pro Ala Pro Val Met Glu Gln Trp Gln Thr Met Lys Val Gln Arg	
70 75 80	
tgc aaa ara gaa act gag gct tgc tct t	386
Cys Lys Xaa Glu Thr Glu Ala Cys Ser	
85 90	

<210> 2826  
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 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS



<222> 53..292

<400> 2826

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                                     Met Leu
                                     1
cgc ttc ctg gca ccc cgg ctg ctt agc ctc cag ggc agg acc gcc cgc      106
Arg Phe Leu Ala Pro Arg Leu Leu Ser Leu Gln Gly Arg Thr Ala Arg
      5              10              15
tac tcc tcg gca gca gcc ctc cca agc ncc att ctg aac cca gac atc      154
Tyr Ser Ser Ala Ala Ala Leu Pro Ser Xaa Ile Leu Asn Pro Asp Ile
      20              25              30
ccc tac aac cag ctg ttc atc aac aat gaa tgg caa gat gca gtc agc      202
Pro Tyr Asn Gln Leu Phe Ile Asn Asn Glu Trp Gln Asp Ala Val Ser
      35              40              45              50
aag aag acc ttc ccg acg gtc aac cct acc acc ggg gag gtc atc ggg      250
Lys Lys Thr Phe Pro Thr Val Asn Pro Thr Thr Gly Glu Val Ile Gly
      55              60              65
cac gtg gct gaa ggt gac cgg gct gat gtg gat cgg ggc gct      292
His Val Ala Glu Gly Asp Arg Ala Asp Val Asp Arg Gly Ala
      70              75              80
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<210> 2827

<211> 170

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 18..170

<400> 2827

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cccctggagc cctgacc atg gaa ctc gca ctt ttc gat ctg gac aac acc      50
               Met Glu Leu Ala Leu Phe Asp Leu Asp Asn Thr
               1               5               10
ctg ctt tcc ggc gat tcg gac ttc gaa tgg gct caa ttc ctc atc ggc      98
Leu Leu Ser Gly Asp Ser Asp Phe Glu Trp Ala Gln Phe Leu Ile Gly
      15              20              25
aag ggg gta ctc gac cgg gag atc cag gaa gcc aag aac atc gag ttc      146
Lys Gly Val Leu Asp Arg Glu Ile Gln Glu Ala Lys Asn Ile Glu Phe
      30              35              40
tac gag cag tac aag gcc ggc ccc      170
Tyr Glu Gln Tyr Lys Ala Gly Pro
      45              50
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<210> 2828

<211> 229

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 41..229

<400> 2828

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				Met	Glu	Leu	Pro	Xaa								
				1				5								
acc	aat	ggt	gct	ggg	gta	aaa	agc	caa	agg	ccc	ttt	agc	ccc	aga	gag	103
Thr	Asn	Gly	Ala	Gly	Val	Lys	Ser	Gln	Arg	Pro	Phe	Ser	Pro	Arg	Glu	
				10				15						20		
gcg	ttg	cgg	tct	aga	gcc	atc	atc	aaa	cct	gtt	att	gtt	gat	aag	gat	151
Ala	Leu	Arg	Ser	Arg	Ala	Ile	Ile	Lys	Pro	Val	Ile	Val	Asp	Lys	Asp	
			25					30					35			
gtg	aaa	aaa	atc	atg	gga	gga	tct	gga	aca	gag	amt	acg	ttg	gag	aaa	199
Val	Lys	Lys	Ile	Met	Gly	Gly	Ser	Gly	Thr	Glu	Xaa	Thr	Leu	Glu	Lys	
	40						45					50				
cag	aaa	ccc	gtc	tcc	aaa	cca	ggg	cca	ktt							229
Gln	Lys	Pro	Val	Ser	Lys	Pro	Gly	Pro	Xaa							
	55						60									

<210> 2829

<211> 375

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 81..374

<400> 2829

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aaaaattctt	ctgccttgag	atg	cta	tta	atg	tgt	aac	gct	agc	ccc	aac	cct	113			
		Met	Leu	Leu	Met	Cys	Asn	Ala	Ser	Pro	Asn	Pro				
		1				5						10				
gtg	gtc	aca	gaa	ata	ttt	gct	gtg	ttg	act	caa	ggt	tta	atg	gat	ata	161
Val	Val	Thr	Glu	Ile	Phe	Ala	Val	Leu	Thr	Gln	Gly	Leu	Met	Asp	Ile	
			15				20					25				
ggg	ctg	tgc	agg	atg	tgc	ttt	gtt	aaa	aat	gtg	ttt	gca	cgc	agt	atg	209
Gly	Leu	Cys	Arg	Met	Cys	Phe	Val	Lys	Asn	Val	Phe	Ala	Arg	Ser	Met	
		30					35				40					
ctt	ggt	aaa	agt	cat	cac	cct	tct	ctg	gtc	tca	agt	acc	cag	ggr	sac	257
Leu	Gly	Lys	Ser	His	His	Pro	Ser	Leu	Val	Ser	Ser	Thr	Gln	Gly	Xaa	
	45					50				55						
aat	gca	ctg	tcg	aag	gcc	aca	ggg	acc	tct	gcc	caa	gaa	cgc	ctg	ggg	305
Asn	Ala	Leu	Ser	Lys	Ala	Thr	Gly	Thr	Ser	Ala	Gln	Glu	Arg	Leu	Gly	
60					65				70					75		
att	gtc	caa	ggt	ttc	tcc	cca	ctg	aga	cag	cct	gag	aca	tgg	cct	cgt	353
Ile	Val	Gln	Gly	Phe	Ser	Pro	Leu	Arg	Gln	Pro	Glu	Thr	Trp	Pro	Arg	
			80						85					90		
ggg	aag	gga	aag	acc	tta	ccg	t									375
Gly	Lys	Gly	Lys	Thr	Leu	Pro										
			95													

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 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 161..346

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 tattatttttc agtgattttg tgagatcagc tgaaccactt atg ata ata atr ata 175  
 Met Ile Ile Xaa Ile  
 1 5  
 aaa aag act gct ttg ccc tca cgt cag ttg tac atg gca tgg aac ttt 223  
 Lys Lys Thr Ala Leu Pro Ser Arg Gln Leu Tyr Met Ala Trp Asn Phe  
 10 15 20  
 aaa aat ttt aat ata aac ttt cat cca gtt agc ttc ata act ttt acg 271  
 Lys Asn Phe Asn Ile Asn Phe His Pro Val Ser Phe Ile Thr Phe Thr  
 25 30 35  
 ttc cag aat ttt gtt tat ttt cct gtc aat krw rag cat ttt wra aga 319  
 Phe Gln Asn Phe Val Tyr Phe Pro Val Asn Xaa Xaa His Phe Xaa Arg  
 40 45 50  
 tac cag tgg gac agg nwt ggt ttt tta 346  
 Tyr Gln Trp Asp Arg Xaa Gly Phe Leu  
 55 60

<210> 2831  
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 <212> DNA  
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<220>  
 <221> CDS  
 <222> 106..276

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 Met Leu Ser Val  
 1  
 ctg cac cca ctg tcc tgc acc cac ttt cca aca ttc ccc agt gag atg 165  
 Leu His Pro Leu Ser Cys Thr His Phe Pro Thr Phe Pro Ser Glu Met  
 5 10 15 20  
 aac cca gta cct cag ttg gaa atg cag aaa tca cac atc ttc tgc atc 213  
 Asn Pro Val Pro Gln Leu Glu Met Gln Lys Ser His Ile Phe Cys Ile  
 25 30 35  
 gct cat gct tgg agc tgt aga ctg gag ctg ttc cta ttc ggc cat ctt 261  
 Ala His Ala Trp Ser Cys Arg Leu Glu Leu Phe Leu Phe Gly His Leu  
 40 45 50  
 ggc tcc acc ccc cgt a 277

Gly Ser Thr Pro Arg  
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<221> CDS

<222> 56..229

<400> 2832

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Met  
1  
atc tca gct cac tgc aac ttc tgc ctt cca ggt tca ggc gaa tct cct 106  
Ile Ser Ala His Cys Asn Phe Cys Leu Pro Gly Ser Gly Glu Ser Pro  
5 10 15  
gcc aca gcc acc caa gta gct ggg act aca ggc gcg tgc cac cac gcc 154  
Ala Thr Ala Thr Gln Val Ala Gly Thr Thr Gly Ala Cys His His Ala  
20 25 30  
cag cta att ttt gta ttt tta gta aag acg ggg ttt cac cat gtt ggc 202  
Gln Leu Ile Phe Val Phe Leu Val Lys Thr Gly Phe His His Val Gly  
35 40 45  
cag gat ggt ctc aat ctc ttg acc aca t 230  
Gln Asp Gly Leu Asn Leu Leu Thr Thr  
50 55

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<211> 256

<212> DNA

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Met Xaa Leu Val Leu Ile Gly His Ser Ile  
1 5 10  
ggc agc tat ttc aca ctt cag atg ctg aag cga gtc cct gag ctc ccg 160  
Gly Ser Tyr Phe Thr Leu Gln Met Leu Lys Arg Val Pro Glu Leu Pro  
15 20 25  
gta att cgt gcc ttt ctg ctc ttt cca aca att gaa cga atg tct gag 208  
Val Ile Arg Ala Phe Leu Leu Phe Pro Thr Ile Glu Arg Met Ser Glu  
30 35 40  
tca ccc mat ggc aga att gcc act cca ctt ttg tgc tgg ttt cga tat 256  
Ser Pro Xaa Gly Arg Ile Ala Thr Pro Leu Leu Cys Trp Phe Arg Tyr  
45 50 55

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                   Met Pro Thr Asn Arg Xaa Ser Xaa Val Phe Lys Cys  
                   1                  5                  10  
 gat acc tat aca cca cag aat act aag aag cca cca agg maa atc ama 158  
 Asp Thr Tyr Thr Pro Gln Asn Thr Lys Lys Pro Pro Arg Xaa Ile Xaa  
                   15                  20                  25  
 cac aga aac aaa atc atg ccc tca gca gca aca tam gat aga act gca 206  
 His Arg Asn Lys Ile Met Pro Ser Ala Ala Thr Xaa Asp Arg Thr Ala  
                   30                  35                  40  
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 Gly His Ser Ala Lys Arg Thr Gln Ala Arg Thr  
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 <222> 61..252

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 Met Arg Pro Leu Gly Lys Gly Leu Leu Pro Ala Glu Glu Leu Ile Arg  
 1                  5                  10                  15  
 agc aat ctt gga gtt ggc agg agc ctt aga gac tgc ctr agc cag tcc 156  
 Ser Asn Leu Gly Val Gly Arg Ser Leu Arg Asp Cys Leu Ser Gln Ser  
                   20                  25                  30  
 ggg aag ctg gct gag gag ctt ggg agc aag aga cta aaa cca gcc aag 204  
 Gly Lys Leu Ala Glu Glu Leu Gly Ser Lys Arg Leu Lys Pro Ala Lys  
                   35                  40                  45  
 ttt ggg aca gaa ggg aag gaa agg gtt gag cag cga aca gag aga ccg 252  
 Phe Gly Thr Glu Gly Lys Glu Arg Val Glu Gln Arg Thr Glu Arg Pro  
                   50                  55                  60

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<213> Homo sapiens

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<221> CDS

<222> 78..281

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Met Pro Pro Pro Gln Arg Asn Ser Phe Phe Phe  
1 5 10  
att att tat tta ttt aat aat aga gat gag gtt tca cca tgt tgc cca 158  
Ile Ile Tyr Leu Phe Asn Asn Arg Asp Glu Val Ser Pro Cys Cys Pro  
15 20 25  
ggc tgg tgt caa tct cct gga ctc aag caa tcc atc tgc cct ggt tcc 206  
Gly Trp Cys Gln Ser Pro Gly Leu Lys Gln Ser Ile Cys Pro Gly Ser  
30 35 40  
cca aag tgc tgg gat tac tgc cgt aag cca cca tac ctg gcc aag aaa 254  
Pro Lys Cys Trp Asp Tyr Cys Arg Lys Pro Pro Tyr Leu Ala Lys Lys  
45 50 55  
ttc att cat ttt ttt ttt ttt ttt ttt tt 283  
Phe Ile His Phe Phe Phe Phe Phe Phe  
60 65

<210> 2837

<211> 266

<212> DNA

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<220>

<221> CDS

<222> 86..265

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ggaaaagggt ccagagtcct aggag atg aca agg att tat cct ctt cat ctt 112  
Met Thr Arg Ile Tyr Pro Leu His Leu  
1 5  
tct ccg atc cca gtt agc agg aat act tta gcc tgg aag gtg agt gtg 160  
Ser Pro Ile Pro Val Ser Arg Asn Thr Leu Ala Trp Lys Val Ser Val  
10 15 20 25  
ccc cta acc aac ctt tac aga tgg gtg act gtt tgg gag ctt atg gct 208  
Pro Leu Thr Asn Leu Tyr Arg Trp Val Thr Val Trp Glu Leu Met Ala  
30 35 40  
cac tcc ttc tct tta aag cag atg cat tct ggc aag ctg cag cag caa 256  
His Ser Phe Ser Leu Lys Gln Met His Ser Gly Lys Leu Gln Gln Gln  
45 50 55  
acc tac ccc g 266  
Thr Tyr Pro  
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<210> 2838



Leu Arg Ser Val Leu Asn Asn Leu Lys Gly Asp  
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Met Val Glu Phe Ile Val  
1 5  
aca cac atg atg aag gag ttt cct atg gat ctc tat ata cgc tgc atc 104  
Thr His Met Met Lys Glu Phe Pro Met Asp Leu Tyr Ile Arg Cys Ile  
10 15 20  
cag gta gta cac aaa mtg stc tgm tac cag aag aag tgt cgg gta cgc 152  
Gln Val Val His Lys Xaa Xaa Xaa Tyr Gln Lys Lys Cys Arg Val Arg  
25 30 35  
ctg cat tac acc tgg cgg gag ctc tgg tca gcc ttg ata aat ttg ctg 200  
Leu His Tyr Thr Trp Arg Glu Leu Trp Ser Ala Leu Ile Asn Leu Leu  
40 45 50  
aag ttc ctt atg tca aat gag act gta ctt ttg gcc aaa cc 241  
Lys Phe Leu Met Ser Asn Glu Thr Val Leu Leu Ala Lys  
55 60 65

<210> 2841  
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atggtgttagc tggcaggaac gtgtggacag tggatatggtg cggtcagact gagcgtacag 180  
agcaatggga gagataagct aactgagtta gccagggtgtg tgggtatcca gcagtgtgtg 240  
ttgaacacct gt atg caa agt cct gcc tgg aag ctc tgt tca ggg aac ttc 291  
Met Gln Ser Pro Ala Trp Lys Leu Cys Ser Gly Asn Phe  
1 5 10  
tgn ngc cgt cct ggc tac agt tgc aga gcc agg acg gcc tca gaa gtt 339  
Xaa Xaa Arg Pro Gly Tyr Ser Cys Arg Ala Arg Thr Ala Ser Glu Val  
15 20 25  
cct gga mca gag aca aag gca cgc aga ctt agt gtt cat gtg tgc ata 387  
Pro Gly Xaa Glu Thr Lys Ala Arg Arg Leu Ser Val His Val Cys Ile  
30 35 40 45



418

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1801

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Ala Glu Leu Cys Asn Pro Ser Trp Phe Pro His Cys Leu Trp Asn Phe			
35	40	45	50
tct tgc tct ttc cca cct cca cag ctt tgc cct ggc agt gcy wcc ccc			249
Ser Cys Ser Phe Pro Pro Pro Gln Leu Cys Pro Gly Ser Ala Xaa Pro			
55	60	65	
tct aac gcc caa c			262
Ser Asn Ala Gln			
70			

<210> 2844  
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 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 28..258

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Met Lys Gly Lys Asn Thr Ile Ile Cys	
1	5
gct cct aca ggt tgt gga aaa acc ttt gtt tca ctg ctt ata tgt gaa	102
Ala Pro Thr Gly Cys Gly Lys Thr Phe Val Ser Leu Leu Ile Cys Glu	
10	15
cat cat ctt aaa aaa ttc cca caa gga caa aag ggg aaa gtt gtc ttt	150
His His Leu Lys Lys Phe Pro Gln Gly Gln Lys Gly Lys Val Val Phe	
30	35
ttt gcg aat cag atc cca gtg tat gaa cag cag aaa tct gta ttc tca	198
Phe Ala Asn Gln Ile Pro Val Tyr Glu Gln Gln Lys Ser Val Phe Ser	
45	50
aaa tac ttt gaa aga cat ggg tat aga gtt aca ggc att tct gga gca	246
Lys Tyr Phe Glu Arg His Gly Tyr Arg Val Thr Gly Ile Ser Gly Ala	
60	65
aca gct gag aaa g	70
Thr Ala Glu Lys	
75	

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 <222> 67..258

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gccaac atg tcg acc gcc atg aat ttc ggg acc aag agc ttc cag ccg	108



&lt;400&gt; 2847

ctacaataac tcagtttgct bcttaaattc caaactctgg gaagttgata aataacttcc 60  
 atgatcactt gtaaaagtta catgcacatc tgaaaaaaa tcacaaatct ctatgacagt 120  
 rggttatggt ttgagcttgt taccttgacag tattcttctc tgttccatag gtgaaaacaa 180  
 aggggtgacag rggttatcag gcaggaa atg cct aaa tac ata cat ctc tgc atg 234  
 Met Pro Lys Tyr Ile His Leu Cys Met

1 5  
 gta caa ttt ctc ata tkc atg tat tcc ata aac agt gtt ttt tct ctg 282  
 Val Gln Phe Leu Ile Xaa Met Tyr Ser Ile Asn Ser Val Phe Ser Leu  
 10 15 20 25  
 ttt aag cag act gtt gtt tct tct gag tsa gtg ata tgt gat ctt cgt 330  
 Phe Lys Gln Thr Val Val Ser Ser Glu Xaa Val Ile Cys Asp Leu Arg  
 30 35 40  
 tgg ttt cat ttt gtg aag ctc agt ctg tca g 361  
 Trp Phe His Phe Val Lys Leu Ser Leu Ser  
 45 50

&lt;210&gt; 2848

&lt;211&gt; 448

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 8..448

&lt;400&gt; 2848

aaccgat atg gcg gcg act ctg ggc agc ggg gag cgc tgg acg gaa gct 49  
 Met Ala Ala Thr Leu Gly Ser Gly Glu Arg Trp Thr Glu Ala  
 1 5 10  
 tac att gac gca gtt aga aga aac aaa tac cca gaa gac aca cct cct 97  
 Tyr Ile Asp Ala Val Arg Arg Asn Lys Tyr Pro Glu Asp Thr Pro Pro  
 15 20 25 30  
 gag agt cat gac ccc tgt ggc tgc tgt aac tgc atg aag gca caa aag 145  
 Glu Ser His Asp Pro Cys Gly Cys Cys Asn Cys Met Lys Ala Gln Lys  
 35 40 45  
 gaa aag aag tct gag aat gag tgg act cag acc cgg cag ggt gag ggg 193  
 Glu Lys Lys Ser Glu Asn Glu Trp Thr Gln Thr Arg Gln Gly Glu Gly  
 50 55 60  
 aac tcc acg tac agt gag gaa cag ctg ctt ggg gta caa agg atc aag 241  
 Asn Ser Thr Tyr Ser Glu Glu Gln Leu Leu Gly Val Gln Arg Ile Lys  
 65 70 75  
 aaa tgc aga aat tac tat gaa att ctg gga gtt tct cga gat gct agt 289  
 Lys Cys Arg Asn Tyr Tyr Glu Ile Leu Gly Val Ser Arg Asp Ala Ser  
 80 85 90  
 gac gaa gag ctt aag aaa gct tac aga aaa ctc gcc ctg aaa ttt cac 337  
 Asp Glu Glu Leu Lys Lys Ala Tyr Arg Lys Leu Ala Leu Lys Phe His  
 95 100 105 110  
 cct gac aag aac tgt gct cct gga gca aca gat gct ttc aaa gca ata 385  
 Pro Asp Lys Asn Cys Ala Pro Gly Ala Thr Asp Ala Phe Lys Ala Ile  
 115 120 125  
 gga aat gca ttt gca gtc ctg agc aat cct gat aag aga ctt cgc tat 433  
 Gly Asn Ala Phe Ala Val Leu Ser Asn Pro Asp Lys Arg Leu Arg Tyr

004220" 666T550  
0513999" 022400

130 135 140 448  
gat gaa tac gga gat  
Asp Glu Tyr Gly Asp  
145

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<220>  
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tcggatgtta gagtaccctt tgataaacta aattttacta agctgaacaa ctctgacagt 180  
ctaaagagct a atg tgg gtt acc aaa agg cct gta cct gta aaa caa aat 230  
Met Trp Val Thr Lys Arg Pro Val Pro Val Lys Gln Asn  
1 5 10  
gca ggt gta atg att ata cat gtc tat gga tta cct gga cat act ctc 278  
Ala Gly Val Met Ile Ile His Val Tyr Gly Leu Pro Gly His Thr Leu  
15 20 25  
att tgg gtt gtt ctt caa aga agc aag cag ccg atc cct gtt ttc ata 326  
Ile Trp Val Val Leu Gln Arg Ser Lys Gln Pro Ile Pro Val Phe Ile  
30 35 40 45  
aag cta ata ctt cag ttg gaa a 348  
Lys Leu Ile Leu Gln Leu Glu  
50

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<212> DNA  
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ggttgtccgg gtgcaaaaaa gcatgagtkt ctgaccagcg ttctggacgc gctgtccacg 120  
gac atg gtc cac gcc gcc tcc gac ccc tcc tcc tcc tca ggc agg ctc 168  
Met Val His Ala Ala Ser Asp Pro Ser Ser Ser Ser Gly Arg Leu  
1 5 10 15  
tca gaa ccc gac ccc agc cat acc cta gag gag cgg gtg gtg cac tgg 216  
Ser Glu Pro Asp Pro Ser His Thr Leu Glu Glu Arg Val Val His Trp  
20 25 30  
tac ttc aaa cta ctg gat aaa aac tcc agt gga gac atc ggc aaa aag 264  
Tyr Phe Lys Leu Leu Asp Lys Asn Ser Ser Gly Asp Ile Gly Lys Lys  
35 40 45

gaa atc aaa ccc ttc aag agg ttc ctt cgc aaa aaa tca aag ccc aaa 312  
 Glu Ile Lys Pro Phe Lys Arg Phe Leu Arg Lys Lys Ser Lys Pro Lys  
           50                                  55                                  60  
 aaa tgt gtg aag aag ttt gtt gaa tac tgt gac gtg aat vat gac aaa 360  
 Lys Cys Val Lys Lys Phe Val Glu Tyr Cys Asp Val Asn Xaa Asp Lys  
           65                                  70                                  75  
 tcc atc tcc gta caa gaa ctg atg ggc tgc ctg ggc gt 398  
 Ser Ile Ser Val Gln Glu Leu Met Gly Cys Leu Gly  
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 <221> CDS  
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   1                                  5                                  10  
 att aat aac atg gag atg gca cca ggt ggt gtc atc act tct gac atg 100  
 Ile Asn Asn Met Glu Met Ala Pro Gly Gly Val Ile Thr Ser Asp Met  
                                   15                                  20                                  25  
 att gaa atg ata ttt tcc aaa agc cca gag caa cag ctt tca gca aca 148  
 Ile Glu Met Ile Phe Ser Lys Ser Pro Glu Gln Gln Leu Ser Ala Thr  
                                   30                                  35                                  40  
 cag aaa ttc agg aag ctg ctt tca aaa gaa cct aac cct cct att gat 196  
 Gln Lys Phe Arg Lys Leu Leu Ser Lys Glu Pro Asn Pro Pro Ile Asp  
                                   45                                  50                                  55  
 gaa gtt atc agc aca cca gga gta gtg gcc agg ttt gtg gag ttc stc 244  
 Glu Val Ile Ser Thr Pro Gly Val Val Ala Arg Phe Val Glu Phe Xaa  
                                   60                                  65                                  70  
 aaa cga aaa gag aat tgt aca ctg cag gca gtc tgg gct ctt ggc aac 292  
 Lys Arg Lys Glu Asn Cys Thr Leu Gln Ala Val Trp Ala Leu Gly Asn  
           75                                  80                                  85                                  90  
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 Ile Ala Gly Asp Ser Thr Met Cys  
                                   95

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<400> 2852

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ccctgttagg	agaggagaaa	ggagcgagat	catgatac	atg	gtg	atg	gct	tgc	aga								236	
				Met				Val	Met				Ala	Cys	Arg			
				1				5										
gtc	gta	aac	aaa	aga	aga	cac	atg	gga	ctt	caa	caa	ctt	tca	tca	ttc	284		
Val	Val	Asn	Lys	Arg	Arg	His	Met	Gly	Leu	Gln	Gln	Leu	Ser	Ser	Phe			
				10				15				20						
gcg	gaa	aca	gga	aga	act	ttc	cta	gac	cca	cta	aaa	tca	tcc	aaa	ttt	332		
Ala	Glu	Thr	Gly	Arg	Thr	Phe	Leu	Asp	Pro	Leu	Lys	Ser	Ser	Lys	Phe			
				25				30				35						
att	ata	gat	gaa	gaa	tgt	cat	gaa	agt	gta	tta	atc	agt	tca	aca	gta	380		
Ile	Ile	Asp	Glu	Glu	Cys	His	Glu	Ser	Val	Leu	Ile	Ser	Ser	Thr	Val			
				40				45				50						
agg	ctt	ctt	gaa	agt	ttg	gat	tta									404		
Arg	Leu	Leu	Glu	Ser	Leu	Asp	Leu											
				55				60										

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004220" 6567560

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Met Cys Asn Pro Glu Glu Ala Ala Leu Xaa Gly Leu Glu Glu Val Phe
1 5 10 15
tca gcc acc ctc gcc cat gtc aac agc ctt gtc ctc cag ccc ctg ctc 156
Ser Ala Thr Leu Ala His Val Asn Ser Leu Val Leu Gln Pro Leu Leu
20 25 30
cca gcc gcc cca gat ccc tcg gat ccc tgg ggc aga gag tgc ctg cgg 204
Pro Ala Ala Pro Asp Pro Ser Asp Pro Trp Gly Arg Glu Cys Leu Arg
35 40 45
ctc ttg caa cag ctg cac aag agc tcc cag caa ctc tgg gag gtg acg 252
Leu Leu Gln Gln Leu His Lys Ser Ser Gln Gln Leu Trp Glu Val Thr
50 55 60
gag gaa agc ctg cac tca ctg cag gag agg ctg cgt tac ccg gac tcc 300
Glu Glu Ser Leu His Ser Leu Gln Glu Arg Leu Arg Tyr Pro Asp Ser
65 70 75 80
acc ggt ctg gag tcc ctg ctg ctg ctg cga ggt gct gac cgt gta ctg 348
Thr Gly Leu Glu Ser Leu Leu Leu Leu Arg Gly Ala Asp Arg Val Leu
85 90 95
cag gcc cac ata gag tac att gag tcc tac aca agc tgc atg gtg gtg 396
Gln Ala His Ile Glu Tyr Ile Glu Ser Tyr Thr Ser Cys Met Val Val
100 105 110
cag gcc ttc cag aar gha gcy aag agg aga agc gag ttc tgg cgg ggc 444
Gln Ala Phe Gln Lys Xaa Ala Lys Arg Arg Ser Glu Phe Trp Arg Gly
115 120 125
cag cgg aak gcg ctg cgg cag ctg ctt tca ggt gtk agc tca gag ggc 492
Gln Arg Xaa Ala Leu Arg Gln Leu Leu Ser Gly Val Ser Ser Glu Gly
130 135 140
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His Ile Tyr Thr Met Glu Tyr Tyr Ala Ala Ile Lys Asn Asp Glu Phe
10 15 20 25
atg tcc ttt gta ggg aca tgg atg aag ctg gaa acc atc att ctc agc 150
Met Ser Phe Val Gly Thr Trp Met Lys Leu Glu Thr Ile Ile Leu Ser
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aaa cta tcg caa gga caa aaa acc aaa cac cgc cg 185
Lys Leu Ser Gln Gly Gln Lys Thr Lys His Arg

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 <212> DNA  
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<220>  
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 gttc atg cat gta tca aca gca tat gcc tac tgt aat cgc aag cat att 109  
     Met His Val Ser Thr Ala Tyr Ala Tyr Cys Asn Arg Lys His Ile  
       1                  5                  10                  15  
 gat gaa gta gtc tat cca cca cct gtg gat ccc aag aag ctg att gat 157  
 Asp Glu Val Val Tyr Pro Pro Pro Val Asp Pro Lys Lys Leu Ile Asp  
                   20                  25                  30  
 tct tta gag tgg atg gat gat ggc cta gta aat gat atc acg cca aaa 205  
 Ser Leu Glu Trp Met Asp Asp Gly Leu Val Asn Asp Ile Thr Pro Lys  
           35                  40                  45  
 ttg ata gga gac aga cca g 224  
 Leu Ile Gly Asp Arg Pro  
       50

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<220>  
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 <222> 266..433

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 acatgtggaa tttctcatgg gacagggttt ttattagggt tcccacactg taatattttg 180  
 gtttctttct ttggaatatt tctctgaaca ctgaagtaca tagttgattc tcagtttaat 240  
 cagcacgtct ttattaaaca cttcc atg ttt cag ggc cct gta atc aga ttt 292  
                   Met Phe Gln Gly Pro Val Ile Arg Phe  
                   1                  5  
 gag gtt tat aaa tgc ttc tgg tac cag gac cta tct gcr ata gcc agg 340  
 Glu Val Tyr Lys Cys Phe Trp Tyr Gln Asp Leu Ser Ala Ile Ala Arg  
   10                  15                  20                  25  
 gct tgt tgg tgt cct ggr ata ara tta cag acg aca gak cac tgt gta 388  
 Ala Cys Trp Cys Pro Gly Ile Xaa Leu Gln Thr Thr Xaa His Cys Val  
           30                  35                  40  
 tgh agt akt agg rac tac tgt gaa att cat ggt atc tgg ctg gac tt 435  
 Xaa Ser Xaa Arg Xaa Tyr Cys Glu Ile His Gly Ile Trp Leu Asp  
       45                  50                  55

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 <211> 435  
 <212> DNA  
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<220>  
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 <222> 121..435

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 atg aca gca aga act ctg tct tta atg gct tca ttg gta gcg tat gat 168  
 Met Thr Ala Arg Thr Leu Ser Leu Met Ala Ser Leu Val Ala Tyr Asp  
 1 5 10 15  
 gat tgc gac tgc gag gct gag aca gag cat gca gga agt ttt aat gct 216  
 Asp Ser Asp Ser Glu Ala Glu Thr Glu His Ala Gly Ser Phe Asn Ala  
 20 25 30  
 acc ggc cag cag aaa gac act tct ggt gtg gcc aga cca cct ggg cag 264  
 Thr Gly Gln Gln Lys Asp Thr Ser Gly Val Ala Arg Pro Pro Gly Gln  
 35 40 45  
 gat ttt gca tct ggt aca ctg gat gtg ccc aga gca ggg gca cag ccc 312  
 Asp Phe Ala Ser Gly Thr Leu Asp Val Pro Arg Ala Gly Ala Gln Pro  
 50 55 60  
 aca aag cat ggc ttc tgt gaa gac cca ggg ggc tat cgc ctt cca ttg 360  
 Thr Lys His Gly Phe Cys Glu Asp Pro Gly Gly Tyr Arg Leu Pro Leu  
 65 70 75 80  
 gct cag ctt ggg aga agc gat cgg gga tct tgc ccc agc cag agg cta 408  
 Ala Gln Leu Gly Arg Ser Asp Arg Gly Ser Cys Pro Ser Gln Arg Leu  
 85 90 95  
 cag tgg ccc ggg aag gag cct cag tca 435  
 Gln Trp Pro Gly Lys Glu Pro Gln Ser  
 100 105

<210> 2859  
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 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 128..328

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 tgctagaaaa ctgtctgaaa acaatttggtg actcatcttc ctcttggttc tgaaggattg 120  
 cttatgg atg ccc aaa tgc gtt aag ttc gga tgg ttt ctg ccc tat act 169  
 Met Pro Lys Cys Val Lys Phe Gly Trp Phe Leu Pro Tyr Thr  
 1 5 10  
 cca aca gat aat gag tat ggt gct tgg aag cgc cat tac att gct tgt 217  
 Pro Thr Asp Asn Glu Tyr Gly Ala Trp Lys Arg His Tyr Ile Ala Cys

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15	20	25	30	
gtg tcc cac tta gac	tggtg ctg aca cct	agg gag gct gct gct	act tat	265
Val Ser His Leu Asp	Trp Leu Thr Pro Arg	Glu Ala Ala Ala Thr	Tyr	
	35	40	45	
ggg acg ctg aat gaa	ccc aaa aca gaa	gat gag gwh cta	ctg gag aga	313
Gly Thr Leu Asn Glu	Pro Lys Thr Glu	Asp Glu Xaa Leu	Leu Glu Arg	
	50	55	60	
caa aga gaa aag tgc	ct			330
Gln Arg Glu Lys Cys				
	65			

<210> 2860  
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 <212> DNA  
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<220>  
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 <222> 43..195

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	Met Leu Ser Leu
	1
ggg aag aat cac cct gga ctg atg ccc gaa ccg	aat agg cct gat cca
Gly Lys Asn His Pro Gly Leu Met Pro Glu Pro	Asn Arg Pro Asp Pro
5	10 15 20
gct ggc ctt tcc agg tct caa gta caa acc	gat ggc acg gat ctc tct
Ala Gly Leu Ser Arg Ser Gln Val Gln Thr	Asp Gly Thr Asp Leu Ser
	25 30 35
gga cac cac agg gat gtg gag gcg aga	gtg aag tct tgg agc act
Gly His His Arg Asp Val Glu Ala Arg	Val Lys Ser Trp Ser Thr
	40 45 50

<210> 2861  
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 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 44..274

<400> 2861	
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gaa ggt ttt vmt gaa gat gag gcg act gaa	tcg gaa aaa aac ttt aag
Glu Gly Phe Xaa Glu Asp Glu Ala Thr Glu	Ser Glu Lys Asn Phe Lys
5	10 15 20
ttt ggt aaa aga gtt gga tgc ctt tcc	gaa gtt cct gag agc tat gta
Phe Gly Lys Arg Val Gly Cys Leu Ser	Glu Val Pro Glu Ser Tyr Val

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	25		30		35	
gag act tca gcc agt gga ggt aca gtt tct cta ata gca ttt aca act						199
Glu Thr Ser Ala Ser Gly Gly Thr Val Ser Leu Ile Ala Phe Thr Thr						
	40		45		50	
atg gct tta tta acc ata atg gaa ttc tca gta tat caa gat aca tgg						247
Met Ala Leu Leu Thr Ile Met Glu Phe Ser Val Tyr Gln Asp Thr Trp						
	55		60		65	
atg aag tat gaa tac gaa gta gac agt g						275
Met Lys Tyr Glu Tyr Glu Val Asp Ser						
	70		75			

<210> 2862  
 <211> 278  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 53..277

<400> 2862	
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	Met Tyr
	1
acc gga gaa agc cra agk gma tta ttt cam aat cta aag ctt gtw tat	106
Thr Gly Glu Ser Xaa Xaa Xaa Leu Phe Xaa Asn Leu Lys Leu Val Tyr	
	5 10 15
ata atg gta gtt tgw waa agt gwa cct tcc cca cag gac gct gtg gga	154
Ile Met Val Val Xaa Xaa Ser Xaa Pro Ser Pro Gln Asp Ala Val Gly	
	20 25 30
tgt waa ttt gta ggt cga gtt twy agc tgg wtt ttc ttg act gaa gct	202
Cys Xaa Phe Val Gly Arg Val Xaa Ser Trp Xaa Phe Leu Thr Glu Ala	
	35 40 45 50
cat tca act ggt tam ttc ttt gtg ggw gtc ttt aat gaa gct tat aaa	250
His Ser Thr Gly Xaa Phe Phe Val Gly Val Phe Asn Glu Ala Tyr Lys	
	55 60 65
tgg caa aag caa aag gct tcc aag act c	278
Trp Gln Lys Gln Lys Ala Ser Lys Thr	
	70 75

<210> 2863  
 <211> 388  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 209..388

<400> 2863	
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ttctagggtt ttatttttagt ttggaaagtt tgtacaattt tttgcagata gattctgggt	120

aggggttaaat catgcaacca cagtgagggt tncagaccag ggttctgaac cactggataa 180  
 aagtgaact tcacaatgta tggcctga atg tct gca gtg aat tgt tcc ttt 232  
 Met Ser Ala Val Asn Cys Ser Phe  
 1 5  
 cac aaa cac ttt att cat gac tta aag tac tgt gct att ata ggc act 280  
 His Lys His Phe Ile His Asp Leu Lys Tyr Cys Ala Ile Ile Gly Thr  
 10 15 20  
 aca gag ctt caa aat tat ttt aaa att gtc cct tac ctt ctt gat ata 328  
 Thr Glu Leu Gln Asn Tyr Phe Lys Ile Val Pro Tyr Leu Leu Asp Ile  
 25 30 35 40  
 cca ttt tct gct gtg ttc aag hag act cca ggg gta ggc tgg gga cga 376  
 Pro Phe Ser Ala Val Phe Lys Xaa Thr Pro Gly Val Gly Trp Gly Arg  
 45 50 55  
 gaa acc caa tta 388  
 Glu Thr Gln Leu  
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<210> 2864  
 <211> 284  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 70..282

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 acagaacaa atg gct gaa aag aaa tca aag aag aaa gtt gag gaa gaa gag 111  
 Met Ala Glu Lys Lys Ser Lys Lys Lys Val Glu Glu Glu Glu  
 1 5 10  
 gaa gat ggg gtg aat atg gaa aac ttt cag gag ttc atc aga caa gca 159  
 Glu Asp Gly Val Asn Met Glu Asn Phe Gln Glu Phe Ile Arg Gln Ala  
 15 20 25 30  
 agt gag gct gaa ctg gag gag gtg ttg act ttt tat acc caa aag aac 207  
 Ser Glu Ala Glu Leu Glu Glu Val Leu Thr Phe Tyr Thr Gln Lys Asn  
 35 40 45  
 aag tct gct agt gtc ttc ctg ggg act cac tct aaa att tct aag aac 255  
 Lys Ser Ala Ser Val Phe Leu Gly Thr His Ser Lys Ile Ser Lys Asn  
 50 55 60  
 aac aac aat tat tct gat agt rrg gca cg 284  
 Asn Asn Asn Tyr Ser Asp Ser Xaa Ala  
 65 70

<210> 2865  
 <211> 411  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 210..410

&lt;400&gt; 2865

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gtgggaaaac gcagccact taattataac ttcaaggagg aaagtaagcc caggaggctc 120
aaatctgtga ctggtctgtg gtaaaaacag actggtgggc ttctgagact ttctgtgga 180
cgctgttgcc tctgcagcca ctggaagag atg tgg tgt cct ctt gtt acc agt 233
                               Met Trp Cys Pro Leu Val Thr Ser
                               1           5
gtg tct tgt gta atc aag atg gta tgc cat gct att cac tcc aac atg 281
Val Ser Cys Val Ile Lys Met Val Cys His Ala Ile His Ser Asn Met
10           15           20
ctt ttc tgt atc ttc ccc caa gat gtc cct aca ggc cct cct gaa gga 329
Leu Phe Cys Ile Phe Pro Gln Asp Val Pro Thr Gly Pro Pro Glu Gly
25           30           35           40
gaa acc caa agt gan kra ctt aac tct tcc ctc ttt agt cct cat cat 377
Glu Thr Gln Ser Xaa Xaa Leu Asn Ser Ser Leu Phe Ser Pro His His
45           50           55
ttg agg tta tct ttt gtc att gtt acc agc gag g 411
Leu Arg Leu Ser Phe Val Ile Val Thr Ser Glu
60           65

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&lt;210&gt; 2866

&lt;211&gt; 279

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 107..277

&lt;400&gt; 2866

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tttgtgaatg cagaagctct caggaaaaca gatgctgcat ttcagctggg cttgtctgaa 60
taaataaaatt acccaaattct ccaaattttt aatttcatgt ttgaaa atg aag ctg 115
                               Met Lys Leu
                               1
tgt aaa tat tct aga agg gga gga aga agg aga tgc agt gta tac att 163
Cys Lys Tyr Ser Arg Arg Gly Gly Arg Arg Arg Cys Ser Val Tyr Ile
5           10           15
agg ttt ata tgt gaa atc ctc ctc cct gtg cct gtc acc atc ctc agt 211
Arg Phe Ile Cys Glu Ile Leu Leu Pro Val Pro Val Thr Ile Leu Ser
20           25           30           35
aca gcc ccc gtg gct cag gtg gcc aac tca tgg tgt ggc ttg ggt gga 259
Thr Ala Pro Val Ala Gln Val Ala Asn Ser Trp Cys Gly Leu Gly Gly
40           45           50
gca tac tgt aaa gag gct gc 279
Ala Tyr Cys Lys Glu Ala
55

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&lt;210&gt; 2867

&lt;211&gt; 332

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

<220>  
 <221> CDS  
 <222> 137..331

<400> 2867

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taggggttatt	ttcttttatt	tgagctgtgt	tccaaagacc	cagcattcca	aaaccttgga	120
acggttttgt	tcagtt atg	cca gct aat	tct gga ctt	gca ttg agg	tta ctt	172
	Met	Pro	Ala	Asn	Ser Gly Leu Ala Leu Arg Leu Leu	
	1			5	10	
caa cat gaa	tgg gaa gaa	agc aat gtt	cag att ctg	aaa ctt caa	gcc	220
Gln His	Glu Trp Glu Glu	Ser Asn Val	Gln Ile Leu	Lys Leu Gln	Ala	
	15	20		25		
aag atg ttt	aca tat aat	atc cca aca	tgc ctg gcc	acc tgg aaa	ata	268
Lys Met Phe	Thr Tyr Asn	Ile Pro Thr	Cys Leu Ala	Thr Trp Lys	Ile	
	30	35	40			
gcc att gct	gct gag att	gtt cta aag	gga caa aga	gag gtc cac	cgt	316
Ala Ile Ala	Ala Glu Ile	Val Leu Lys	Gly Gln Arg	Glu Val His	Arg	
45	50	55	60			
tta tat cag	aga gcc g					332
Leu Tyr Gln	Arg Ala					
	65					

<210> 2868  
 <211> 421  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 49..420

<400> 2868

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					Met Gly Leu	
					1	
cct aaa ctt	aat gca aga	tta aag gat	gaa act ctg	cag cca ttc	ttt	105
Pro Lys Leu	Asn Ala Arg	Leu Lys Asp	Glu Thr Leu	Gln Pro Phe	Phe	
5	10		15			
gaa gga tta	tta ccc cga	gat aat cca	aga aac act	cgg ttt gcc	atc	153
Glu Gly Leu	Leu Pro Arg	Asp Asn Pro	Arg Asn Thr	Arg Phe Ala	Ile	
20	25	30	35			
aac ttc ttt	act tct ata	ggg ctt gga	ggg tta acg	gat gaa ctg	cga	201
Asn Phe Phe	Thr Ser Ile	Gly Leu Gly	Gly Leu Thr	Asp Glu Leu	Arg	
	40	45	50			
gag cat ctc	aaa aat aca	cca aag gtc	att gtg gcg	cag aaa cca	gat	249
Glu His Leu	Lys Asn Thr	Pro Lys Val	Ile Val Ala	Gln Lys Pro	Asp	
	55	60	65			
gtt gag caa	aat aaa tcc	tcc cca tcc	tct tcc tct	tca gcg tcc	tcc	297
Val Glu Gln	Asn Lys Ser	Ser Pro Ser	Ser Ser Ser	Ser Ala Ser	Ser	
70	75	80				
tct tca gag	tct gac tca	tcc gac tct	gat tct gac	agc agt gat	agc	345

Ser Ser Glu Ser Asp Ser Ser Asp Ser Asp Ser Asp Ser Ser Ser Asp Ser  
85 90 95  
agt tca gag tct tcc agt gaa gag agc gac tct tca tcc atc agt agt 393  
Ser Ser Glu Ser Ser Ser Glu Glu Ser Asp Ser Ser Ser Ile Ser Ser  
100 105 110 115  
cat agc tct gcc tca gct aat gat gta a 421  
His Ser Ser Ala Ser Ala Asn Asp Val  
120

<210> 2869  
<211> 430  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 252..428

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tcacaccagg agagcctcag gtcttcctag ggaaagataa ggcttttact tttgactatg 120  
tatttgacat tgactcccag caagagcaga tctacattca atgtatagaa aaactaattg 180  
aaggttgctt tgaaggatag aatgctacag tttttgctta tggacaaaact ggagctggta 240  
aaacatacac a atg gga aca gga ttt gat gtt aac att gtt gag gaa gaa 290  
Met Gly Thr Gly Phe Asp Val Asn Ile Val Glu Glu Glu  
1 5 10  
ctg ggt att att tct cga gct gtt aaa cac ctt ttt aag agt att gaa 338  
Leu Gly Ile Ile Ser Arg Ala Val Lys His Leu Phe Lys Ser Ile Glu  
15 20 25  
gaa aaa aaa cac ata gca att aaa aat ggg ctt cct gct cca gat ttt 386  
Glu Lys Lys His Ile Ala Ile Lys Asn Gly Leu Pro Ala Pro Asp Phe  
30 35 40 45  
aaa gtg aat gcc caa ttc tta gag ctg tat aat gaa gag gtc ca 430  
Lys Val Asn Ala Gln Phe Leu Glu Leu Tyr Asn Glu Glu Val  
50 55

<210> 2870  
<211> 353  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 117..353

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aatcttaagg aagagtggaa atgcatgggc tttggagctg gacatttggg gtttaa atg 119  
Met  
1  
ctg act ctg ctg tgg gac cgt ggg agt agc tgg aca ctg cat cta tca 167  
Leu Thr Leu Leu Trp Asp Arg Gly Ser Ser Trp Thr Leu His Leu Ser



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His	Gln	Ile	Leu	Gly	Asp	Ala
	20		25		30	
ttc	caa	aga	tgg	cca	ggc	tgc
Phe	Gln	Arg	Trp	Pro	Gly	Cys
	35		40		45	
tgg	aca	aag	gag	gag	ccc	tac
Trp	Thr	Lys	Glu	Glu	Pro	Tyr
50			55		60	
caa	gca	aag	gtg	act	tgc	tgc
Gln	Ala	Lys	Val	Thr	Cys	Cys
	70		75			

<210> 2871  
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 <222> 58..276

<400> 2871														
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Met	Val	Cys	Leu	Leu	Tyr	Thr	His	Ile	Cys	Ile	Asp	Met	Cys	Val
1			5					10					15	
tat	aca	cac	atg	tat	aga	tat	gtg	tgt	ata	tta	tac	ata	tat	aca
Tyr	Thr	His	Met	Tyr	Arg	Tyr	Val	Cys	Ile	Leu	Tyr	Ile	Tyr	Thr
	20						25				30			
aca	cac	atg	tat	aca	gtt	cat	agg	tat	aca	tat	agt	ata	tgt	ata
Thr	His	Met	Tyr	Thr	Val	His	Arg	Tyr	Thr	Tyr	Ser	Ile	Cys	Ile
	35					40					45			
cca	tat	aat	aaa	aga	ctc	cta	gac	agt	ata	gtt	gag	ctc	ttg	tgg
Pro	Tyr	Asn	Lys	Arg	Leu	Leu	Asp	Ser	Ile	Val	Glu	Leu	Leu	Trp
50					55					60				
gat	ttt	cac	ccc	aga	ctc	cgg	aca	cct						
Asp	Phe	His	Pro	Arg	Leu	Arg	Thr	Pro						
65					70									

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 <222> 158..469

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Met Asn Thr Trp Ser Leu

1 5

20

35

50

5

85

100

ca accagatqag ttgc

caa gaa att cgc

10

25

40

55

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 <212> DNA  
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<220>  
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 <222> 46..255

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 Met Thr Ser Leu  
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 ttt gct gtt gtg tta cag aga gag aag gaa cct cac ctg tgg ctc agc 105  
 Phe Ala Val Val Leu Gln Arg Glu Lys Glu Pro His Leu Trp Leu Ser  
 5 10 15 20  
 tca ccc cac atc cgt ttc tca tta cgt gta aat aaa ctg tca gag ctg 153  
 Ser Pro His Ile Arg Phe Ser Leu Arg Val Asn Lys Leu Ser Glu Leu  
 25 30 35  
 atg tta cag ctt tta cag ttt aaa gca ttc ccc tcg tct cta gtt cct 201  
 Met Leu Gln Leu Leu Gln Phe Lys Ala Phe Pro Ser Ser Leu Val Pro  
 40 45 50  
 ttt ttc ttg ttt aca tgt ttt ggg cac ttt ccc tca ttc acc acc ttc 249  
 Phe Phe Leu Phe Thr Cys Phe Gly His Phe Pro Ser Phe Thr Thr Phe  
 55 60 65  
 cag ggc t 256  
 Gln Gly  
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 <212> DNA  
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 Arg Asp Cys Gln Ala Trp Lys Asp Ala Arg Leu Pro Leu Ser Thr Thr  
 10 15 20  
 agc aac gaa gcc tgc aag ctg ttc gat gcc acg ctg acc cag tat gta 149  
 Ser Asn Glu Ala Cys Lys Leu Phe Asp Ala Thr Thr Gln Tyr Val  
 25 30 35  
 aaa tgg acc aat gac aag agt ctc ggt ggc atc gag ggc tgc ctg tca 197  
 Lys Trp Thr Asn Asp Lys Ser Leu Gly Gly Ile Glu Gly Cys Leu Ser  
 40 45 50 55  
 aag ctc aaa gca gca gat cca acc ttt gtg atg ggc cac gcc atg gct 245

Lys Leu Lys Ala Ala Asp Pro Thr Phe Val Met Gly His Ala Met Ala  
60 65 70  
act ggc ctt gtg ctg att ggc act gga agc tcc gtg aag ctg gac aaa 293  
Thr Gly Leu Val Leu Ile Gly Thr Gly Ser Ser Val Lys Leu Asp Lys  
75 80 85  
gag ctg gac ctg gct gtg aag aca atg gtg gag att tca aga acc cac 341  
Glu Leu Asp Leu Ala Val Lys Thr Met Val Glu Ile Ser Arg Thr His  
90 95 100  
gcc  
Ala 344

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Val Tyr Cys Xaa Xaa Phe Val Phe Gly Arg Gly Gly Gly Met Gly Asp  
10 15 20  
aga ttt tca ctc ttg tca ccc agg cca gag tgc aat ggt gtg atc ctg 151  
Arg Phe Ser Leu Leu Ser Pro Arg Pro Glu Cys Asn Gly Val Ile Leu  
25 30 35  
gct cac tgc aac ctc cgc ctc tgc ggt tca acc cat tct cct gtc tca 199  
Ala His Cys Asn Leu Arg Leu Ser Gly Ser Thr His Ser Pro Val Ser  
40 45 50  
gcc tcc gga gta gct ggg att aca ggc atg cac cac cac gcc cag cta 247  
Ala Ser Gly Val Ala Gly Ile Thr Gly Met His His His Ala Gln Leu  
55 60 65  
att ttt gwa ttt tta gta gag acg ggg ttt cac cat gtt ggc cag gct 295  
Ile Phe Xaa Phe Leu Val Glu Thr Gly Phe His His Val Gly Gln Ala  
70 75 80 85  
ggg ctt gaa ctc ctc acc tca ggt gat cca cct gcc tcg gcc tcc caa 343  
Gly Leu Glu Leu Leu Thr Ser Gly Asp Pro Pro Ala Ser Ala Ser Gln  
90 95 100  
agt gct gag gtt aca ggc gtg agc nac cac acc tgg cct gct ttg tgt 391  
Ser Ala Glu Val Thr Gly Val Ser Xaa His Thr Trp Pro Ala Leu Cys  
105 110 115  
tat ttt tac tta gtt gcc ttc aca caa gta ttt tta gtr gag amc ata 439  
Tyr Phe Tyr Leu Val Ala Phe Thr Gln Val Phe Leu Val Glu Xaa Ile  
120 125 130  
cag gta att aaa gct gtg atc tta aac acg atc gt 474  
Gln Val Ile Lys Ala Val Ile Leu Asn Thr Ile  
135 140

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 aagctt atg aag cga agg ttg caa cag gac aaa gtg tta att aca gag 168  
 Met Lys Arg Arg Leu Gln Gln Asp Lys Val Leu Ile Thr Glu  
 1 5 10  
 ctc atc cag cat tca gcg aaa cat aag gtt gac att gat tgc agt cag 216  
 Leu Ile Gln His Ser Ala Lys His Lys Val Asp Ile Asp Cys Ser Gln  
 15 20 25 30  
 aag gtt gta gtt tac gat caw agc tcc caa gat gtt gcc tct ctc tct 264  
 Lys Val Val Val Tyr Asp Xaa Ser Ser Gln Asp Val Ala Ser Leu Ser  
 35 40 45  
 tca gac tgt ttt ctc act gta ctt ctg ggt aaa ctg gag aag agc ttc 312  
 Ser Asp Cys Phe Leu Thr Val Leu Leu Gly Lys Leu Glu Lys Ser Phe  
 50 55 60  
 aac tct gtt cac ctg ctt gca 333  
 Asn Ser Val His Leu Leu Ala  
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 Met Gln Lys Tyr Glu Gln Lys Ile  
 1 5  
 aga cat ttt ggt atg ttg agt cga tgg gat gat agc cag aga ttt ttg 100  
 Arg His Phe Gly Met Leu Ser Arg Trp Asp Asp Ser Gln Arg Phe Leu  
 10 15 20  
 tct gac cat cca tac ctt gta tgt gaa gaa act gct aaa tat ctt att 148  
 Ser Asp His Pro Tyr Leu Val Cys Glu Glu Thr Ala Lys Tyr Leu Ile  
 25 30 35 40  
 tta tgg tgt ttt cac ctg gaa gct gag aag aaa ggg gct tta atg gaa 196  
 Leu Trp Cys Phe His Leu Glu Ala Glu Lys Lys Gly Ala Leu Met Glu  
 45 50 55  
 caa ata gca cat caa gct gtt gta atg cag ttt att atg gaa atg gcc 244  
 Gln Ile Ala His Gln Ala Val Val Met Gln Phe Ile Met Glu Met Ala  
 60 65 70

aaa aac tgt aat gtg gat cca aga ggg tgt ttt cgt tta ttt ttc cag 292  
 Lys Asn Cys Asn Val Asp Pro Arg Gly Cys Phe Arg Leu Phe Phe Gln  
       75                              80                              85  
 aaa gcc aaa gca gag ga 309  
 Lys Ala Lys Ala Glu  
       90

<210> 2879  
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 <222> 16..177

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                               1                              5                              10  
 cca gaa atg cgc ggc acg cac gct ctt tct cta cgg agc ggg gac gag 99  
 Pro Glu Met Arg Gly Thr His Ala Leu Ser Leu Arg Ser Gly Asp Glu  
       15                              20                              25  
 ggg cac tac ggg gca gga gtg ttc cag agg ggc ctg tgc ggg cgc aag 147  
 Gly His Tyr Gly Ala Gly Val Phe Gln Arg Gly Leu Cys Gly Arg Lys  
       30                              35                              40  
 ttt ggg aga aat aac aga cgg aaa ggg ggt 177  
 Phe Gly Arg Asn Asn Arg Arg Lys Gly Gly  
       45                              50

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 <222> 17..205

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                               1                              5                              10  
 gga ctg tca act agt tca acc att gtg gaa gtc agt gtg gcg att cct 100  
 Gly Leu Ser Thr Ser Ser Thr Ile Val Glu Val Ser Val Ala Ile Pro  
       15                              20                              25  
 cag gga tct aga act aga aaa tac cat ttg acc cag cca tcc cat tac 148  
 Gln Gly Ser Arg Thr Arg Lys Tyr His Leu Thr Gln Pro Ser His Tyr  
       30                              35                              40  
 tgg gta tat acc caa agg act ata aat cat gct gct ata aag aca cat 196  
 Trp Val Tyr Thr Gln Arg Thr Ile Asn His Ala Ala Ile Lys Thr His  
       45                              50                              55                              60

gca cac tcg c  
Ala His Ser

206

<210> 2881  
<211> 398  
<212> DNA  
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<220>  
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<222> 237..398

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ggaggatgtt cactgcgcgg atgatgctca ggccatcgag aaatccagaa acaggcgacg 180  
accttcgtca agagaaaaat gatcctgtgg agaaaagtaa atgtcgctag gttggg atg 239  
Met  
1

gat ggt aac agg cca agc ccc gga cct ata tct agc cac att ttt tgt 287  
Asp Gly Asn Arg Pro Ser Pro Gly Pro Ile Ser Ser His Ile Phe Cys  
5 10 15

maa gga gga aac caa ttc tgt aga gaa aag tac ctc cct gyc cct tgm 335  
Xaa Gly Gly Asn Gln Phe Cys Arg Glu Lys Tyr Leu Pro Xaa Pro Xaa  
20 25 30

aag gac cag tgt cag gma atc cta gtg cma cwn ttc tgg cta ctg cat 383  
Lys Asp Gln Cys Gln Xaa Ile Leu Val Xaa Xaa Phe Trp Leu Leu His  
35 40 45

gtc aag rag cca gtc 398  
Val Lys Xaa Pro Val  
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<211> 270  
<212> DNA  
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<220>  
<221> CDS  
<222> 72..269

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tttaagttaa a atg tta atg gca atc ctc agg gca gcc tct aag aaa ata 110  
Met Leu Met Ala Ile Leu Arg Ala Ala Ser Lys Lys Ile  
1 5 10

act caa aaa tgc ata gtg gaa gaa aca aca aga gag tta aaa ttg tac 158  
Thr Gln Lys Cys Ile Val Glu Glu Thr Thr Arg Glu Leu Lys Leu Tyr  
15 20 25

act aga aaa ata cct aac aca aag aat gca gta atg aca gaa gat agt 206  
Thr Arg Lys Ile Pro Asn Thr Lys Asn Ala Val Met Thr Glu Asp Ser  
30 35 40 45

**Q**uestions **A**nswers

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<220>  
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<212> DNA
<213> Homo sapiens
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<220>
<221> CDS
<222> 28..255
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1824



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Gln Leu Pro Glu Ile Leu Arg Thr Pro Leu Glu Glu Leu Cys Leu Gln						
	45		50		55	
ata aag att tta agg cta ggt gga att gct tat ttt ctg agt aga tta						246
Ile Lys Ile Leu Arg Leu Gly Gly Ile Ala Tyr Phe Leu Ser Arg Leu						
	60		65		70	
atg gac cac						255
Met Asp His						
	75					

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<220>  
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 <222> 55..237

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cca tat att cct ctc atg gag ttc agt tgt tca cat tct cac tta gta	105
Pro Tyr Ile Pro Leu Met Glu Phe Ser Cys Ser His Ser His Leu Val	
	5
	10
	15
tgc tta ccc gca gag tgg agg act agc tgt atg ccc agt tcc aaa atg	153
Cys Leu Pro Ala Glu Trp Arg Thr Ser Cys Met Pro Ser Ser Lys Met	
	20
	25
	30
aag gag atg agc tcg tta ttt cca gaa gac tgg tac caa ttt gtt cta	201
Lys Glu Met Ser Ser Leu Phe Pro Glu Asp Trp Tyr Gln Phe Val Leu	
	35
	40
	45
agg cag ttg gaa tgt tat cat tca gaa gag aag gcc tc	239
Arg Gln Leu Glu Cys Tyr His Ser Glu Glu Lys Ala	
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 <222> 98..475

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aatcaattac ttcttagaaa gtctaatttt tttcaaaa atg acc atg tac aag agc	115
	Met Thr Met Tyr Lys Ser
	1
	5
aaa cgc aga cat cag aga tat atc aac atg gca gga gag ccc aaa cca	163

Lys Arg Arg His Gln Arg Tyr Ile Asn Met Ala Gly Glu Pro Lys Pro  
 10 15 20  
 tac aga cca aaa cct gga aac aag agg ccc ctt tct gca ctt tac aga 211  
 Tyr Arg Pro Lys Pro Gly Asn Lys Arg Pro Leu Ser Ala Leu Tyr Arg  
 25 30 35  
 ctt gaa tca aag gaa cct ttc ctg tct gtt ggc ggt tat gtc ttt gac 259  
 Leu Glu Ser Lys Glu Pro Phe Leu Ser Val Gly Gly Tyr Val Phe Asp  
 40 45 50  
 tat gat tac tac aga gat gat ttc tac aat cgg tta ttt gat tac cac 307  
 Tyr Asp Tyr Tyr Arg Asp Asp Phe Tyr Asn Arg Leu Phe Asp Tyr His  
 55 60 65 70  
 ggg cgt gtg cct cca cct ccc cgt gca gta att ccg ctg aag cgt ccc 355  
 Gly Arg Val Pro Pro Pro Pro Arg Ala Val Ile Pro Leu Lys Arg Pro  
 75 80 85  
 aga gtg gca gtc aca akg act cgc agg ggg aaa gga gtc ttt tcc atg 403  
 Arg Val Ala Val Thr Xaa Thr Arg Arg Gly Lys Gly Val Phe Ser Met  
 90 95 100  
 ara ggt gga tcg aga tct act gcc agt ggg tca aca ggt tct aaa ttg 451  
 Xaa Gly Gly Ser Arg Ser Thr Ala Ser Gly Ser Thr Gly Ser Lys Leu  
 105 110 115  
 aaa tca gat gag tta cag acc atc a 476  
 Lys Ser Asp Glu Leu Gln Thr Ile  
 120 125

<210> 2887  
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 <212> DNA  
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<220>  
 <221> CDS  
 <222> 137..394

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 ggctgccggg gccagcagg accagctgaa ggctgcgcag ggggtgcggg ccacacagac 120  
 gctgcaggag ctgaag atg gcg agc tcc gtg gcg ccc tac gag cag ctg gtg 172  
 Met Ala Ser Ser Val Ala Pro Tyr Glu Gln Leu Val  
 1 5 10  
 agg cag gtg gag gcc ttg aag gct gag aac agc cac ctg agg cag gag 220  
 Arg Gln Val Glu Ala Leu Lys Ala Glu Asn Ser His Leu Arg Gln Glu  
 15 20 25  
 cta agg gac aac tcc agc cac ctg tcc aag ctg gag aca gag acg tcg 268  
 Leu Arg Asp Asn Ser Ser His Leu Ser Lys Leu Glu Thr Glu Thr Ser  
 30 35 40  
 ggc atg aag gag gtc ctg aag cac cta cag gga aaa ctg gag cag gag 316  
 Gly Met Lys Glu Val Leu Lys His Leu Gln Gly Lys Leu Glu Gln Glu  
 45 50 55 60  
 gcc cga gtg ctg gtg tcc tcg ggg cag acg gag gtg ctg gag cag ctg 364  
 Ala Arg Val Leu Val Ser Ser Gly Gln Thr Glu Val Leu Glu Gln Leu  
 65 70 75  
 aag gcc cta cag atg gac atc acc agc cta ct 396  
 Lys Ala Leu Gln Met Asp Ile Thr Ser Leu

80

85

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 <211> 396  
 <212> DNA  
 <213> Homo sapiens

<220>  
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 <222> 215..394

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 cagatgcagg ggtttcaaaa tggagtgtgt ggcccacagt gtgatgggggt catgctgtga 120  
 ggcgcctct gagctaccaa caaggaagcg agagtaactg aatggagtac agaaggaaca 180  
 gaaagcaggt tttgagcaca ggaagcttgg aaac atg act gtg acg gtg aag aag 235  
 Met Thr Val Thr Val Lys Lys  
 1 5  
 act gtc ccc tct cct gag gct gtg cag atc ctc tac cag cgg atg aga 283  
 Thr Val Pro Ser Pro Glu Ala Val Gln Ile Leu Tyr Gln Arg Met Arg  
 10 15 20  
 tac gag tac gag ttt tac cac tac gtc aaa gag cag ttc cac ctg ctg 331  
 Tyr Glu Tyr Glu Phe Tyr His Tyr Val Lys Glu Gln Phe His Leu Leu  
 25 30 35  
 aag cgc aag ttt gga ctt arg tct cac gtc agc aag ccc ccc ctg agg 379  
 Lys Arg Lys Phe Gly Leu Xaa Ser His Val Ser Lys Pro Pro Leu Arg  
 40 45 50 55  
 cca cac ttc ttt atc cc 396  
 Pro His Phe Phe Ile  
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<220>  
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 1 5 10 15  
 ccc ctg ttg gca tca tgt gag agt gaa gac agt att tgc cag ctc att 97  
 Pro Leu Leu Ala Ser Cys Glu Ser Glu Asp Ser Ile Cys Gln Leu Ile  
 20 25 30  
 gaa gtt aag aag aga aag aag gtg ctg tcc tgg ccc ttt ctc atg aga 145  
 Glu Val Lys Lys Arg Lys Lys Val Leu Ser Trp Pro Phe Leu Met Arg  
 35 40 45  
 agg ctc tcc cct gca tca gat ttt tct ggg gct ttg gag aca gac ttg 193  
 Arg Leu Ser Pro Ala Ser Asp Phe Ser Gly Ala Leu Glu Thr Asp Leu

004220" 666ET560

50 55 60 218  
 aaa gca tcg cta ttt gat cag ccc g  
 Lys Ala Ser Leu Phe Asp Gln Pro  
 65 70

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 <212> DNA  
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<220>  
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 1 5  
 aga gag aag gtc ctc cca gcg gca aag cta att aaa agg aga aac ctg 102  
 Arg Glu Lys Val Leu Pro Ala Ala Lys Leu Ile Lys Arg Arg Asn Leu  
 10 15 20  
 ttt tcc aca tgc act cct caa tat ggy aca cat gct gct ttc ttg tca 150  
 Phe Ser Thr Cys Thr Pro Gln Tyr Gly Thr His Ala Ala Phe Leu Ser  
 25 30 35 40  
 tta cat gcc tca ctt gtc acc aaa gca ttt tca atc aat tcc tgg gag t 199  
 Leu His Ala Ser Leu Val Thr Lys Ala Phe Ser Ile Asn Ser Trp Glu  
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<210> 2891  
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 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 49..282

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 Met Ala Tyr  
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 ggt tca gca agt caa ctc ttg agg acc tat ttt mmt gaa gga atg agt 105  
 Gly Ser Ala Ser Gln Leu Leu Arg Thr Tyr Phe Xaa Glu Gly Met Ser  
 5 10 15  
 gaa act tta ata aga aac att ctc ttt gga gcc gtg aga ggg ttg aac 153  
 Glu Thr Leu Ile Arg Asn Ile Leu Phe Gly Ala Val Arg Gly Leu Asn  
 20 25 30 35  
 tat ctg cac caa aat ggc tgt att cac agg agt att aaa gcc agc cat 201  
 Tyr Leu His Gln Asn Gly Cys Ile His Arg Ser Ile Lys Ala Ser His  
 40 45 50  
 atc ctc att tct ggt gat ggc cta gtg acc ctc tct ggc ctt tcc cat 249  
 Ile Leu Ile Ser Gly Asp Gly Leu Val Thr Leu Ser Gly Leu Ser His

55 60 65 283  
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 Leu His Ser Leu Val Lys His Gly Gln Arg Gln  
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 <212> DNA  
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 <222> 26..178

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 Gly Leu Xaa Xaa Met Phe Arg Phe Gly Lys His Arg Lys Asp Asp Lys  
 10 15 20 25  
 att gar aaa acg ggt aaa ata aaa ata cag gaa tcc ttt aca tca gaa 148  
 Ile Glu Lys Thr Gly Lys Ile Lys Ile Gln Glu Ser Phe Thr Ser Glu  
 30 35 40  
 gag gag agg ata cga atg aag cag gag caa aa 180  
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<220>  
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 <222> 100..450

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 Met Ser Cys Leu Xaa  
 1 5  
 aat twc ttg rac gtt ctc ttt tca acc gca tcc atc atg cat ctc tgt 162  
 Asn Xaa Leu Xaa Val Leu Phe Ser Thr Ala Ser Ile Met His Leu Cys  
 10 15 20  
 gcc att tca gtg gat cgt tac ata gcc atc aaa aag cca atc cag gcc 210  
 Ala Ile Ser Val Asp Arg Tyr Ile Ala Ile Lys Lys Pro Ile Gln Ala  
 25 30 35  
 aat caa tat aac tca cgg gct aca gca ttc atc aag att aca gtg gtg 258  
 Asn Gln Tyr Asn Ser Arg Ala Thr Ala Phe Ile Lys Ile Thr Val Val  
 40 45 50  
 tgg tta att tca ata ggc att gcc att cca gtc cct att aaa ggg ata 306

Trp Leu Ile Ser Ile Gly Ile Ala Ile Pro Val Pro Ile Lys Gly Ile  
 55 60 65  
 gag act gat gtg gac aac cca aac aat atc act tgt gtg ctg aca aag 354  
 Glu Thr Asp Val Asp Asn Pro Asn Asn Ile Thr Cys Val Leu Thr Lys  
 70 75 80 85  
 gaa cgt ttt ggc gat ttc atg ctc tdd ggc tca ctg gct gcc ttc ttc 402  
 Glu Arg Phe Gly Asp Phe Met Leu Xaa Gly Ser Leu Ala Ala Phe Phe  
 90 95 100  
 aca cct ctt gca att atg att gtc acc tac ttt ctc act atc cat gca 450  
 Thr Pro Leu Ala Ile Met Ile Val Thr Tyr Phe Leu Thr Ile His Ala  
 105 110 115  
 at 452

<210> 2894  
 <211> 334  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 95..334

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 Met Val Ile Leu Trp Thr Met  
 1 5  
 gag act agc tca gaa tac gct gat ttc cct ctc ctg act ttg cca agc 163  
 Glu Thr Ser Ser Glu Tyr Ala Asp Phe Pro Leu Leu Thr Leu Pro Ser  
 10 15 20  
 ctt tgg ctg ctt ttg cct gat aaa ggg cag ggc cat ctg aag aca ctt 211  
 Leu Trp Leu Leu Leu Pro Asp Lys Gly Gln Gly His Leu Lys Thr Leu  
 25 30 35  
 ccc cca gtc ggc ttt gga gtc acg gga gct agt gcc tgc tca cac att 259  
 Pro Pro Val Gly Phe Gly Val Thr Gly Ala Ser Ala Cys Ser His Ile  
 40 45 50 55  
 ttt caa aag ggc agt gca ctc aga act tca ctg tac ctg gga ttn dta 307  
 Phe Gln Lys Gly Ser Ala Leu Arg Thr Ser Leu Tyr Leu Gly Xaa Xaa  
 60 65 70  
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 Ile Pro Leu Ala Val Leu Thr Ser Ser  
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<210> 2895  
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                        Met Leu Phe Gly Xaa Arg Phe Asp Trp Pro
                        1           5           10
gtg gca ata tct ttg gaa act tgc gta ttt acc agg cat gaa gaa tct      161
Val Ala Ile Ser Leu Glu Thr Cys Val Phe Thr Arg His Glu Glu Ser
                        15           20           25
ttc tca ttt caa ttg gag ctt tat cac cag ccc aag gga gag gaa tgt      209
Phe Ser Phe Gln Leu Glu Leu Tyr His Gln Pro Lys Gly Glu Glu Cys
                        30           35           40
cct aac gca tat caa gtt ctg agg ttg ggg      239
Pro Asn Ala Tyr Gln Val Leu Arg Leu Gly
                        45           50

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&lt;210&gt; 2896

&lt;211&gt; 183

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 17..181

&lt;400&gt; 2896

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                        Met Phe Arg Thr Phe Asn Ser Lys Arg Lys Arg Val
                        1           5           10
tcc ata gaa aaa tgg tct tgt ctt ctc agc aac aga cac gtt tct ttt      100
Ser Ile Glu Lys Trp Ser Cys Leu Leu Ser Asn Arg His Val Ser Phe
                        15           20           25
ata tat aaa agg tca aag ctg aat gga ttt ttc cct ccc tcc agg gaa      148
Ile Tyr Lys Arg Ser Lys Leu Asn Gly Phe Phe Pro Pro Ser Arg Glu
                        30           35           40
gtg gcg ttt gaa acc aga ata tcc ctc ctg act cc      183
Val Ala Phe Glu Thr Arg Ile Ser Leu Leu Thr
                        45           50           55

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&lt;210&gt; 2897

&lt;211&gt; 348

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 89..346

&lt;400&gt; 2897

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tttaatgtta aaacgtgata atgcaataaa tagaaaaatg tggtttacaa aataaaaaacg      60
gtcttcacta gttaccacct gaagtaag atg tct cgt ttg gaa gct aag aag      112
                        Met Ser Arg Leu Glu Ala Lys Lys
                        1           5

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cca tca ttg tgt aag agt gaa cca ctg aca act gag aga gtc agg acc	160
Pro Ser Leu Cys Lys Ser Glu Pro Leu Thr Thr Glu Arg Val Arg Thr	
10 15 20	
aca ctt tct gtc ttg aaa aga att gta aca tca tgc tat ggc ccc tca	208
Thr Leu Ser Val Leu Lys Arg Ile Val Thr Ser Cys Tyr Gly Pro Ser	
25 30 35 40	
ggg agg ctg aag cag ctg cac aat ggc ttt gga ggt tac gtg tgt aca	256
Gly Arg Leu Lys Gln Leu His Asn Gly Phe Gly Gly Tyr Val Cys Thr	
45 50 55	
acc tca cag tcc tca gct ctg ctc agt cac ctt ttg gtc aca cat ccc	304
Thr Ser Gln Ser Ser Ala Leu Leu Ser His Leu Leu Val Thr His Pro	
60 65 70	
att tta aag atc ctg aca tvn tcc ata cag aat cat gtg tca ag	348
Ile Leu Lys Ile Leu Thr Xaa Ser Ile Gln Asn His Val Ser	
75 80 85	

<210> 2898  
 <211> 433  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 66..431

<400> 2898	
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cgacg atg gtg ctg gtg tcc tgg att atg tgg tac gta cct gtg ggc atc	110
Met Val Leu Val Ser Trp Ile Met Trp Tyr Val Pro Val Gly Ile	
1 5 10 15	
atg ttc ctt gtt gga agc aag atc gtg gaa atg aaa gac atc atc gtg	158
Met Phe Leu Val Gly Ser Lys Ile Val Glu Met Lys Asp Ile Ile Val	
20 25 30	
ctg gtg acc agc ctg ggg aaa tac atc ttc gca tct ata ttg ggc cat	206
Leu Val Thr Ser Leu Gly Lys Tyr Ile Phe Ala Ser Ile Leu Gly His	
35 40 45	
gtt att cat gga gga att gtt ctg cca ctt att tat ttt gtt ttc aca	254
Val Ile His Gly Gly Ile Val Leu Pro Leu Ile Tyr Phe Val Phe Thr	
50 55 60	
cga raa aac cca ttc aga ttc ctc ctg ggc ctc ctc gcc cca ttt gcg	302
Arg Xaa Asn Pro Phe Arg Phe Leu Leu Gly Leu Leu Ala Pro Phe Ala	
65 70 75	
aca sat ttg cta cct gct cca ggt gag tgg gtt ttg ggt ctc ttc act	350
Thr Xaa Leu Leu Pro Ala Pro Gly Glu Trp Val Leu Gly Leu Phe Thr	
80 85 90 95	
gct ctg agc cat gtt aac atg gaa cca ggt gag ccc agt ggt aga tgc	398
Ala Leu Ser His Val Asn Met Glu Pro Gly Glu Pro Ser Gly Arg Cys	
100 105 110	
aca asc agt gtc ttg aca tac ttt aat tcc tgg aa	433
Thr Xaa Ser Val Leu Thr Tyr Phe Asn Ser Trp	
115 120	

<210> 2899



<211> 463  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 219..461

<400> 2899  
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 tatagtatgg gagaacattc ttgcaaatta tatatctgat aatgggtctac tatccagagt 120  
 atatataaag aactcttata actcaacagc aaaaggcata aataactttt aaatggacaa 180  
 aggacttgaa tagctatttc ttcaaagaag atgtacaa atg gcc agc aag tac gtg 236  
 Met Ala Ser Lys Tyr Val  
 1 5  
 aaa aga tgc ttg gtg tca tta gta att acg gaa atc aaa acc aca atg 284  
 Lys Arg Cys Leu Val Ser Leu Val Ile Thr Glu Ile Lys Thr Thr Met  
 10 15 20  
 aga tac cac ttc ata ccc act ggg atg gtt gtg atc aaa aga aca aaa 332  
 Arg Tyr His Phe Ile Pro Thr Gly Met Val Val Ile Lys Arg Thr Lys  
 25 30 35  
 ata aca ggt ttt gat gag gat gta caa aaa ttg gaa ccc tta tac att 380  
 Ile Thr Gly Phe Asp Glu Asp Val Gln Lys Leu Glu Pro Leu Tyr Ile  
 40 45 50  
 gct tgc ata aat acm aat tgg tgg tac agc tgc ygt ggg awg cag ttt 428  
 Ala Cys Ile Asn Thr Asn Trp Trp Tyr Ser Cys Xaa Gly Xaa Gln Phe  
 55 60 65 70  
 ggc rgt cct caa aaa gtt aac ata aag gcc ggg tt 463  
 Gly Xaa Pro Gln Lys Val Asn Ile Lys Ala Gly  
 75 80

<210> 2900  
 <211> 172  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 12..170

<400> 2900  
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 Met Leu Phe Tyr Leu Phe Lys Met Glu Phe His Ser Ser  
 1 5 10  
 ccc agg ctg gag tgc wwt ggc acg atc tgg gct cac tgc aac ctc ctc 98  
 Pro Arg Leu Glu Cys Xaa Gly Thr Ile Ser Ala His Cys Asn Leu Leu  
 15 20 25  
 ctc gtg ggt tcc aag agc ttc tcc tgc ctc aac ctc cca agt agt tgg 146  
 Leu Val Gly Ser Lys Ser Phe Ser Cys Leu Asn Leu Pro Ser Ser Trp  
 30 35 40 45  
 gat tgg agg cgc aca cca cca ccc tc 172  
 Asp Trp Arg Arg Thr Pro Pro Pro

<210> 2901  
 <211> 427  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 243..425

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 ttttactaga caagttatctt gtatttcttt gagacaaaaa tctacaagtt aacatgtaac 120  
 ttaatacagt ctgggtcctg atcaatgaaa cacaagttaa acaaaggcat atctttccag 180  
 agaattaaat aatccttttt atgggcctgt taaacaatgc tccagtatga cattgaaaga 240  
 ac atg cag tca ccc ttc tcc ttt ccc tta tct cta cat ttt ggg aaa 287  
 Met Gln Ser Pro Phe Ser Phe Pro Leu Ser Leu His Phe Gly Lys  
 1 5 10 15  
 ttt ttc tta aca gtg ctt cct act aac ttc ttt aaa tgt agt agt ctt 335  
 Phe Phe Leu Thr Val Leu Pro Thr Asn Phe Phe Lys Cys Ser Ser Leu  
 20 25 30  
 tgt gct gtg ggg aca aaa ata tgg cca caa gta gta act ttt ctg knt 383  
 Cys Ala Val Gly Thr Lys Ile Trp Pro Gln Val Val Thr Phe Leu Xaa  
 35 40 45  
 ttt tct tta ata gac aat ccv cag aaa tca gtc aac ggg atg gc 427  
 Phe Ser Leu Ile Asp Asn Pro Gln Lys Ser Val Asn Gly Met  
 50 55 60

<210> 2902  
 <211> 212  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 12..212

<400> 2902  
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 Met Gln Phe Leu Pro Ser Leu Asp Gly Leu Tyr Ile Leu  
 1 5 10  
 gca tgt ttt tgc agt ggc tgg tac cgg ttt ttc ctt tcc atg ttt agt 98  
 Ala Cys Phe Cys Ser Gly Trp Tyr Arg Phe Phe Leu Ser Met Phe Ser  
 15 20 25  
 gct tcc ttc agg agc tct ttt agg gta ggc ctg gtg gtg aca aaa tct 146  
 Ala Ser Phe Arg Ser Ser Phe Arg Val Gly Leu Val Val Thr Lys Ser  
 30 35 40 45  
 ctc aac att tgc ttg tct gta aag tat ttt att tct cct tca ctt atg 194  
 Leu Asn Ile Cys Leu Ser Val Lys Tyr Phe Ile Ser Pro Ser Leu Met  
 50 55 60  
 aag ctt agt ttg gct gga 212

Lys Leu Ser Leu Ala Gly  
65

<210> 2903

<211> 399

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 108..398

<400> 2903

gtgatgatta ttctacagaa gaagaggccc aaaccctga ctgttccata actgacttca 60  
gaaaaagcca cactctgtcc tacttagtca aagaattaga gggtcgc atg gat ctg 116  
Met Asp Leu  
1  
aaa gcc aaa atg cca gat gac cat gca cga aaa att ttg ctt tcc cgt 164  
Lys Ala Lys Met Pro Asp Asp His Ala Arg Lys Ile Leu Leu Ser Arg  
5 10 15  
att aat aac tat act atc cca gaa gaa gaa att ggg tct ttc tta ttt 212  
Ile Asn Asn Tyr Thr Ile Pro Glu Glu Glu Ile Gly Ser Phe Leu Phe  
20 25 30 35  
cat gct att aat aag cca aat gct cct atc tgg ctc ata ctc aat gaa 260  
His Ala Ile Asn Lys Pro Asn Ala Pro Ile Trp Leu Ile Leu Asn Glu  
40 45 50  
gct gga cta tac tgg aga gca gta gga aat agc act ttt gct att gcc 308  
Ala Gly Leu Tyr Trp Arg Ala Val Gly Asn Ser Thr Phe Ala Ile Ala  
55 60 65  
tgt ctt cag agg gct ttg aat tta gct cca ctt caa tac caa gat gtt 356  
Cys Leu Gln Arg Ala Leu Asn Leu Ala Pro Leu Gln Tyr Gln Asp Val  
70 75 80  
cct ctt gtc aac ttg gcc aac ctt ttg att cat tac ggc cag g 399  
Pro Leu Val Asn Leu Ala Asn Leu Leu Ile His Tyr Gly Gln  
85 90 95

<210> 2904

<211> 288

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 30..287

<400> 2904

attatcgaag tgtgtatcaa aagagacta atg gat gaa gct aag att ttg aaa 53  
Met Asp Glu Ala Lys Ile Leu Lys  
1 5  
agc ctt cat cat cca aac att gtt ggt tat cgt gct ttt act gaa gcc 101  
Ser Leu His His Pro Asn Ile Val Gly Tyr Arg Ala Phe Thr Glu Ala  
10 15 20



004220" 666E7560

<400> 2906

aaggcagaag gamrcagtgg tcattgctgg aggttaaaac tgttctgacc gggcgagtg 60  
 gctcacgcct gwattcccag cactttggga ggctgaggcg agcagatcac gaagtcagga 120  
 gatcaagacc atcctggcca acaagggtgaa acccggctc tactaaaaat acaaaaatta 180  
 gctgggctg gtggcgcgcg ccggaagtcc cagctacttg ggagg atg agg cag aag 237  
 Met Arg Gln Lys

1  
 aat cgc ttg aac ccg gga ggc gga ggt tgc ggt gag ccg aga tcg cgc 285  
 Asn Arg Leu Asn Pro Gly Gly Gly Gly Cys Gly Glu Pro Arg Ser Arg  
 5 10 15 20  
 cat tgc act cca gcc tgg cga ctc agc gat act ccg tcc ccc tct ccc 333  
 His Cys Thr Pro Ala Trp Arg Leu Ser Asp Thr Pro Ser Pro Ser Pro  
 25 30 35  
 cgc ccc aag aaa aat ctg ttc agt ggg gag cga caa gga agg agc ttt 381  
 Arg Pro Lys Lys Asn Leu Phe Ser Gly Glu Arg Gln Gly Arg Ser Phe  
 40 45 50  
 cag ccc gac tgg ggt cgc agg gaa gaa tt 410  
 Gln Pro Asp Trp Gly Arg Arg Glu Glu  
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<210> 2907

<211> 278

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 63..278

<400> 2907

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 ga atg act ggg ctg tgc ttg agt ggg gtc gag ccc tgg ggt gtt ttg 107  
 Met Thr Gly Leu Cys Leu Ser Gly Val Glu Pro Trp Gly Val Leu  
 1 5 10 15  
 cct cct aag act gat ccc ctt caa agt cgc cac tcc ccc aaa gtc cct 155  
 Pro Pro Lys Thr Asp Pro Leu Gln Ser Arg His Ser Pro Lys Val Pro  
 20 25 30  
 caa aca ttg tac tca aga aca atg gtg ggg aga tgg tgg gcc ccc tca 203  
 Gln Thr Leu Tyr Ser Arg Thr Met Val Gly Arg Trp Trp Ala Pro Ser  
 35 40 45  
 cct gtt ccc tct ttg aag cag ggc tcc acc cag gac tcg gcc atc aag 251  
 Pro Val Pro Ser Leu Lys Gln Gly Ser Thr Gln Asp Ser Ala Ile Lys  
 50 55 60  
 gac ttc gtg ctg aag tac gcc ctg cgc 278  
 Asp Phe Val Leu Lys Tyr Ala Leu Arg  
 65 70

<210> 2908

<211> 370

<212> DNA

<213> Homo sapiens

<220>

<221> CDS  
 <222> 149..370

<400> 2908

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aaggctagga gacgaacccg gaagtgagat gcaaggcggc gattttccct tctgtcagat      60
cttcatgaac aaagcagtca taattcatct cttagaagat ttatatcctg gcatttgaaa      120
tgctttttat ttagaatagt agtaaaaa atg gaa aaa gaa aaa gga aat gat      172
                        Met Glu Lys Glu Lys Gly Asn Asp
                        1           5
gat gga ata cca gac caa gag aat tcc ttg gat ttt tct gaa cac ttt      220
Asp Gly Ile Pro Asp Gln Glu Asn Ser Leu Asp Phe Ser Glu His Phe
10           15           20
aac caa ctt gaa ttg ttg gaa aca cat gga cac ctt att cct act ggt      268
Asn Gln Leu Glu Leu Leu Glu Thr His Gly His Leu Ile Pro Thr Gly
25           30           35           40
act caa agt ctt tgg gta ggc aat tct gat gaa gat gag gag caa gat      316
Thr Gln Ser Leu Trp Val Gly Asn Ser Asp Glu Asp Glu Glu Gln Asp
45           50           55
gac aaa aat gaa gag tgg tat cga ttg caa gan aaa aaa atg gaa aaa      364
Asp Lys Asn Glu Glu Trp Tyr Arg Leu Gln Xaa Lys Lys Met Glu Lys
60           65           70
gac cct
Asp Pro
370

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<210> 2909  
 <211> 489  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 133..489

<400> 2909

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atactcttta cggtagtagg cactgctgag ctgggagatg tcggcggcgt gttgggagga      60
accgtggggg cttcccgcg gctttgcgaa sgggtcctgg tgaccggcgg tgctgggttc      120
attgcatcac at atg att gtc tct tta gtg gaa gat tat cca aac tat atg      171
                        Met Ile Val Ser Leu Val Glu Asp Tyr Pro Asn Tyr Met
                        1           5           10
atc ata aat cta gac aag ctg gat tac tgt gca agc ttg aag aat ctt      219
Ile Ile Asn Leu Asp Lys Leu Asp Tyr Cys Ala Ser Leu Lys Asn Leu
15           20           25
gaa acc att tct aac aaa cag aac tac aaa ttt ata cag ggt gac ata      267
Glu Thr Ile Ser Asn Lys Gln Asn Tyr Lys Phe Ile Gln Gly Asp Ile
30           35           40           45
tgt gat tct cac ttt gtg aaa ctg ctt ttt gaa aca gak wwa ata gat      315
Cys Asp Ser His Phe Val Lys Leu Leu Phe Glu Thr Xaa Xaa Ile Asp
50           55           60
ata gta cta cat ttt gcc gca caa aca cat gta gat ctt tca ttc gta      363
Ile Val Leu His Phe Ala Ala Gln Thr His Val Asp Leu Ser Phe Val
65           70           75
cgt gct tbg sag ttt acc tat gtt aat gtt tat ggc act cac gtt ttg      411

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&lt;400&gt; 2911

gcttttaaac ccaaagcggc cgccgtagga anggtgaag atg gct gcc tct gcc 54  
 Met Ala Ala Ser Ala  
 1 5  
 ttt gct ggt gca gtg aga gca gct tca gga atc cta cgg ccc ctg aat 102  
 Phe Ala Gly Ala Val Arg Ala Ala Ser Gly Ile Leu Arg Pro Leu Asn  
 10 15 20  
 att ttg gca tct tca acc tac cgc aac tgt gtc aag aat gcc tct ctt 150  
 Ile Leu Ala Ser Ser Thr Tyr Arg Asn Cys Val Lys Asn Ala Ser Leu  
 25 30 35  
 att tct gca ttg tcc act gga cgt ttt agt cag nkt cag aca cca gtt 198  
 Ile Ser Ala Leu Ser Thr Gly Arg Phe Ser Gln Xaa Gln Thr Pro Val  
 40 45 50  
 gtt tcc tcc act ccc aga ctt acc aca tct gag aga aac ctg aca tgt 246  
 Val Ser Ser Thr Pro Arg Leu Thr Thr Ser Glu Arg Asn Leu Thr Cys  
 55 60 65  
 ggg cat acc tca gtg atc ctt aat aga atg gcc ccc gtg ctt cca agt 294  
 Gly His Thr Ser Val Ile Leu Asn Arg Met Ala Pro Val Leu Pro Ser  
 70 75 80 85  
 gtc ctg aag ctg cca gtc aga tct cta aca tac ttc agt gca aga 339  
 Val Leu Lys Leu Pro Val Arg Ser Leu Thr Tyr Phe Ser Ala Arg  
 90 95 100

&lt;210&gt; 2912

&lt;211&gt; 193

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 10..192

&lt;400&gt; 2912

acttccctg atg tgg cgg ccg aac gag gaa gga cgg ggc ctg agg ccc ttc 51  
 Met Trp Arg Pro Asn Glu Glu Gly Arg Gly Leu Arg Pro Phe  
 1 5 10  
 ggc caa ggg tcg agg gtc gcc ggg ggc tct ctg ctt tct act ctc gcc 99  
 Gly Gln Gly Ser Arg Val Ala Gly Gly Ser Leu Leu Ser Thr Leu Ala  
 15 20 25 30  
 aag gtt tta ttg gat tcg gaa gcc cca act tcg aga ctt gca gtc aaa 147  
 Lys Val Leu Leu Asp Ser Glu Ala Pro Thr Ser Arg Leu Ala Val Lys  
 35 40 45  
 gcg att ttt aaa atg act tgt ttt caa gcc tct ggc cgc cgc cca c 193  
 Ala Ile Phe Lys Met Thr Cys Phe Gln Ala Ser Gly Arg Arg Pro  
 50 55 60

&lt;210&gt; 2913

&lt;211&gt; 432

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



<220>  
 <221> CDS  
 <222> 253..432

<400> 2913  
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 tctcggtttt cccatctgaa aaatgggaac agccgtctcc ctccccaag gtgcttgtga 120  
 ggattaactg acatctgaaa gggtttctttc ctcccggtg gaaacctgaa actgcccctt 180  
 gaggttgccc accgctaata acccctgccc ggtgattgct ggggacagag tgctggggtc 240  
 tgaggctcca ac atg ttg tgc ctt ggt cct gca gag aaa gag aag agg gac 291  
 Met Leu Cys Leu Gly Pro Ala Glu Lys Glu Lys Arg Asp  
 1 5 10  
 aaa gcc agc caa gag gga ggg gac gtc ctg ggg gcc cgc caa gam tgc 339  
 Lys Ala Ser Gln Glu Gly Gly Asp Val Leu Gly Ala Arg Gln Xaa Cys  
 15 20 25  
 acc ccc ccc ttg aag agc ttg gtc gcc act ggg aac ctg ctg gac tta 387  
 Thr Pro Pro Leu Lys Ser Leu Val Ala Thr Gly Asn Leu Leu Asp Leu  
 30 35 40 45  
 gag gag acg gct aas gcc ccg mtg tcc acg gtc agc gcc aac acg 432  
 Glu Glu Thr Ala Xaa Ala Pro Xaa Ser Thr Val Ser Ala Asn Thr  
 50 55 60

<210> 2914  
 <211> 352  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 70..351

<400> 2914  
 aatactcttt ccagtcctgg tcaatccagt tttagtcattg gcactaggaa taattctgca 60  
 aaagaaaac atg gaa aag gaa aag cca gtc aaa cgt aaa atg aag tca tct 111  
 Met Glu Lys Glu Lys Pro Val Lys Arg Lys Met Lys Ser Ser  
 1 5 10  
 gta ctc cca aag gcg tcc act ctt tca aag tca tca gct gtc att gag 159  
 Val Leu Pro Lys Ala Ser Thr Leu Ser Lys Ser Ser Ala Val Ile Glu  
 15 20 25 30  
 caa gga gat tgt aag aac aac gct ctt gta cca gga acc att caa gta 207  
 Gln Gly Asp Cys Lys Asn Asn Ala Leu Val Pro Gly Thr Ile Gln Val  
 35 40 45  
 aat ggc cat gga gga cag cca tca aaa ctt gtg aag agg gga cct gga 255  
 Asn Gly His Gly Gly Gln Pro Ser Lys Leu Val Lys Arg Gly Pro Gly  
 50 55 60  
 agg aaa cct aaa gta gaa gtt aat acc aat agt ggt gaa att ata cac 303  
 Arg Lys Pro Lys Val Glu Val Asn Thr Asn Ser Gly Glu Ile Ile His  
 65 70 75  
 aag aaa agg ggt aga aag ccc aaa aag cta cag tat gca aag cca gag a 352  
 Lys Lys Arg Gly Arg Lys Pro Lys Lys Leu Gln Tyr Ala Lys Pro Glu  
 80 85 90

<210> 2915  
 <211> 173  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 16..171

<400> 2915  
 tgtcaaacaa aacca atg gct ctg ggt ttg gag aac aca gtg gct ggt ttt 51  
                   Met Ala Leu Gly Leu Glu Asn Thr Val Ala Gly Phe  
                   1                  5                  10  
 aaa aat tct ttc cac acc tgt caa acc aaa aat cta tca gcc cac gtg 99  
 Lys Asn Ser Phe His Thr Cys Gln Thr Lys Asn Leu Ser Ala His Val  
                   15                  20                  25  
 gtg tgg ttg gtg aac agt gca tgc cag gag gaa gca gts cct cct cac 147  
 Val Trp Leu Val Asn Ser Ala Cys Gln Glu Glu Ala Val Pro Pro His  
                   30                  35                  40  
 cag cwc tcc agc cag gac gat cac ac 173  
 Gln Xaa Ser Ser Gln Asp Asp His  
 45                  50

<210> 2916  
 <211> 303  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 77..301

<400> 2916  
 agagatgtgc tcatgaagat tatgcttggt ggtaaagat cctacttctt tgtttcttca 60  
 gctgaaataa tacgac atg cca ctt cct ttt ttc ctc tta cat caa gcc ctg 112  
                   Met Pro Leu Pro Phe Phe Leu Leu His Gln Ala Leu  
                   1                  5                  10  
 agt atg cct ttg ttt tta ttt ttg tct tat att ata aac tac tgt gtg 160  
 Ser Met Pro Leu Phe Leu Phe Leu Ser Tyr Ile Ile Asn Tyr Cys Val  
                   15                  20                  25  
 cat ata ggt gtt tgg aac cat gag agt gtt tta tca aga aag aat cat 208  
 His Ile Gly Val Trp Asn His Glu Ser Val Leu Ser Arg Lys Asn His  
                   30                  35                  40  
 ggc act gag agg att gat agt gac ttc att aga agc act tta gtt acg 256  
 Gly Thr Glu Arg Ile Asp Ser Asp Phe Ile Arg Ser Thr Leu Val Thr  
 45                  50                  55                  60  
 gca aga ttt tat aaa gtt ctt aat ggt tat aca ttt gtc ccc aaa tg 303  
 Ala Arg Phe Tyr Lys Val Leu Asn Gly Tyr Thr Phe Val Pro Lys  
                   65                  70                  75

<210> 2917  
 <211> 192

<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 16..192

<400> 2917  
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Met Pro Gln Cys Asn Ala Phe Leu Ser Lys Ile Met  
1 5 10  
act tct cta tta agt cct ccc cat cgc aga cct acc tta cat cga aga 99  
Thr Ser Leu Leu Ser Pro Pro His Arg Arg Pro Thr Leu His Arg Arg  
15 20 25  
cct act ttg cct tat agg acc tgg gaa gca gcg ctg agg cag aaa gta 147  
Pro Thr Leu Pro Tyr Arg Thr Trp Glu Ala Ala Leu Arg Gln Lys Val  
30 35 40  
caa cag tgg tac act gct gta ggg caa act gaa aat cct gat atc 192  
Gln Gln Trp Tyr Thr Ala Val Gly Gln Thr Glu Asn Pro Asp Ile  
45 50 55

<210> 2918  
<211> 231  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 73..231

<400> 2918  
accatttttag aaagcaccca gccagttgat gaattagaag gcagatactt tcaggttgag 60  
gttgagaaaa ga atg gtc ccc agt gca gca gct tct cag aat cct gag tca 111  
Met Val Pro Ser Ala Ala Ala Ser Gln Asn Pro Glu Ser  
1 5 10  
gag aaa aga aac acc tgt gtg ttg aga gaa caa atc gtg gct cag tac 159  
Glu Lys Arg Asn Thr Cys Val Leu Arg Glu Gln Ile Val Ala Gln Tyr  
15 20 25  
ccc agt ttg aaa aga gaa agt gaa aaa atc att gaa aac ttc aag aaa 207  
Pro Ser Leu Lys Arg Glu Ser Glu Lys Ile Ile Glu Asn Phe Lys Lys  
30 35 40 45  
aaa atg aaa gta aaa aat ggg gac 231  
Lys Met Lys Val Lys Asn Gly Asp  
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<222> 41..280

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	1 5	
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Gln Gly Cys Ala Leu Pro His Pro Leu Pro Gly Ala Ser Leu Pro Ala		
	10 15 20	
cag cct ggg ccc gca gac cac cgc ggg tgg gag tgc cgc atc gga gag		151
Gln Pro Gly Pro Ala Asp His Arg Gly Trp Glu Cys Arg Ile Gly Glu		
	25 30 35	
aaa ctc act gca gag ctg ggt aag ttc tgg gtg cgg ggc cac agt gct		199
Lys Leu Thr Ala Glu Leu Gly Lys Phe Trp Val Arg Gly His Ser Ala		
	40 45 50	
gcc tgt cag cgg acc ctg tgc ctg tgc agt ggg agg agg ggc tcc ctt		247
Ala Cys Gln Arg Thr Leu Cys Leu Cys Ser Gly Arg Arg Gly Ser Leu		
	55 60 65	
tgg aca gcg gct ggc krc tat cta att cta aac ac		282
Trp Thr Ala Ala Gly Xaa Tyr Leu Ile Leu Asn		
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<220>

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<222> 4..342

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Met Glu Val Trp Asp Val Lys Asn Tyr Lys Leu Ile Ser Lys Pro		
	1 5 10 15	
gtg gct tct gat tct aca tat ttt gct tgg tgc ccg gat ggt gag cat		96
Val Ala Ser Asp Ser Thr Tyr Phe Ala Trp Cys Pro Asp Gly Glu His		
	20 25 30	
att tta aca gct aca tgt gct ccc agg tta cgg gtt aat aat gga tac		144
Ile Leu Thr Ala Thr Cys Ala Pro Arg Leu Arg Val Asn Asn Gly Tyr		
	35 40 45	
aaa att tgg cat tat act ggc tct atc ttg cac aag tat gat gtg cca		192
Lys Ile Trp His Tyr Thr Gly Ser Ile Leu His Lys Tyr Asp Val Pro		
	50 55 60	
tca aat gca gaa tta tgg cag gtt tct tgg cag cca ttt ttg gat gga		240
Ser Asn Ala Glu Leu Trp Gln Val Ser Trp Gln Pro Phe Leu Asp Gly		
	65 70 75	
ata ttt cca gca aaa aca ata act tac caa gca gtt cca agt gaa gta		288
Ile Phe Pro Ala Lys Thr Ile Thr Tyr Gln Ala Val Pro Ser Glu Val		
	80 85 90 95	
ccc aat gag gaa cct aaa gtt gca aca gct tat aga ccc cca gct tta		336
Pro Asn Glu Glu Pro Lys Val Ala Thr Ala Tyr Arg Pro Pro Ala Leu		

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100                                105                                110                                344
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Arg Asn

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atg gtt tcc ttt agt tca twg aac ata agc ata aga gct gtt ttt gag      168
Met Val Ser Phe Ser Ser Xaa Asn Ile Ser Ile Arg Ala Val Phe Glu
1          5          10          15
gtc tct gct aag tct gga cct tct caa agt cag ttt ctt ttg cct act      216
Val Ser Ala Lys Ser Gly Pro Ser Gln Ser Gln Phe Leu Leu Pro Thr
          20          25          30
ttt ttt ctg tat gtg ggg cac aca ttc ttc tgt gca tgt ctt aaa ttt      264
Phe Phe Leu Tyr Val Gly His Thr Phe Phe Cys Ala Cys Leu Lys Phe
          35          40          45
ttt tgt tta aaa ccg gac cta      285
Phe Cys Leu Lys Pro Asp Leu
50          55

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tcaraagagc attctattaa agctacctta atttggcgct tattttttctt aatc atg      117
Met
1
twt ctg aca atc rta rtg tgt gra atg gtt gct gct tta agt gca ata      165
Xaa Leu Thr Ile Xaa Xaa Cys Xaa Met Val Ala Ala Leu Ser Ala Ile
          5          10          15
aga gct aac tgc cat caa gag cca tca gta tgt ctt caa gct gca tgc      213
Arg Ala Asn Cys His Gln Glu Pro Ser Val Cys Leu Gln Ala Ala Cys
          20          25          30
cca gaa agc tgg att ggt ttt caa aga aag tgt ttc tat ttt tct gat      261
Pro Glu Ser Trp Ile Gly Phe Gln Arg Lys Cys Phe Tyr Phe Ser Asp
          35          40          45

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gac acc aag a  
Asp Thr Lys  
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271

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Met Glu Cys Pro Ser Cys  
1 5  
cag cat gtc tcc aag gag gaa acc ccc aag ttc tgc agc cag tgc gga 102  
Gln His Val Ser Lys Glu Glu Thr Pro Lys Phe Cys Ser Gln Cys Gly  
10 15 20  
gag agg ctg cct cct gma gcc ccc ata gca gat tct gag aac aat aac 150  
Glu Arg Leu Pro Pro Xaa Ala Pro Ile Ala Asp Ser Glu Asn Asn Asn  
25 30 35  
tcc aca atg gcg tcg gcc tcg gag ggt gaa atg gag tgt ggg cag gag 198  
Ser Thr Met Ala Ser Ala Ser Glu Gly Glu Met Glu Cys Gly Gln Glu  
40 45 50  
ctg aag gag gaa ggg ggc ccg tgc ttg ttc ccg ggc tca gac agt tgg 246  
Leu Lys Glu Glu Gly Gly Pro Cys Leu Phe Pro Gly Ser Asp Ser Trp  
55 60 65 70  
caa gaa aac ccc gag gag ccc tgt tcc aaa gcc tcc tgg acc gtc caa 294  
Gln Glu Asn Pro Glu Glu Pro Cys Ser Lys Ala Ser Trp Thr Val Gln  
75 80 85  
gaa agc aaa aag aag aaa agg aag aag aaa aag aag ggg aac aag tcc 342  
Glu Ser Lys Lys Lys Arg Lys Lys Lys Lys Lys Gly Asn Lys Ser  
90 95 100  
gcc aa 347  
Ala

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att agg cca ggt gca gtg gct tac acc tgt aat cca agc act ttg gga 97

Ile Arg Pro Gly Ala Val Ala Tyr Thr Cys Asn Pro Ser Thr Leu Gly  
 15 20 25  
 ggc tgg ggt ggg tgg atc acg ggg tca gga gtt cgg gac cgg cct gga 145  
 Gly Trp Gly Gly Trp Ile Thr Gly Ser Gly Val Arg Asp Arg Pro Gly  
 30 35 40 45  
 caa cgt ggc gga gcc cat ctt aaa aat gca aaa att agc cgg gct tgc 193  
 Gln Arg Gly Gly Ala His Leu Lys Asn Ala Lys Ile Ser Arg Ala Cys  
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 Trp Trp Ala

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 Met Ser Leu Val Val Met Asp Val Lys Ile Glu Gln Val  
 1 5 10  
 att tgt aaa gta nng ttg aag cac aar atc tgt aaa ctg tgt caa gcc 159  
 Ile Cys Lys Val Xaa Leu Lys His Lys Ile Cys Lys Leu Cys Gln Ala  
 15 20 25  
 ccc atc tct gcc tgt ctc cac tgc tcc ttt gtt cga aag cac atg tct 207  
 Pro Ile Ser Ala Cys Leu His Cys Ser Phe Val Arg Lys His Met Ser  
 30 35 40 45  
 gac tgt gaa aag ttg atg caa acg tgt tac acg ccc agt cat gtt gga 255  
 Asp Cys Glu Lys Leu Met Gln Thr Cys Tyr Thr Pro Ser His Val Gly  
 50 55 60  
 ggg aac acc tcc tcc agc ccc cag tcc ccc agg ccg gn 293  
 Gly Asn Thr Ser Ser Ser Pro Gln Ser Pro Arg Pro  
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 <212> DNA  
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 Met Glu Lys Lys Gln  
 1 5  
 agc aga aaa act gga aac tct aaa aat cag agt gcc tct cct cct cca 103

004220" 655E560

Ser	Arg	Lys	Thr	Gly	Asn	Ser	Lys	Asn	Gln	Ser	Ala	Ser	Pro	Pro	Pro		
				10					15					20			
aag	gaa	cac	agc	tcc	tca	cca	gca	acg	gaa	caa	agc	tgg	acg	gag	agt		151
Lys	Glu	His	Ser	Ser	Ser	Pro	Ala	Thr	Glu	Gln	Ser	Trp	Thr	Glu	Ser		
			25					30					35				
gac	ttt	gac	gag	ttg	aga	gaa	gaa	ggc	ttc	aga	cga	tca	aac	tac	tcc		199
Asp	Phe	Asp	Glu	Leu	Arg	Glu	Glu	Gly	Phe	Arg	Arg	Ser	Asn	Tyr	Ser		
		40					45					50					
gag	cta	aag	gag	gaa	gtt	cga	acc	cat	ggc	aaa	gaa	gtt	aaa	aac	ctt		247
Glu	Leu	Lys	Glu	Glu	Val	Arg	Thr	His	Gly	Lys	Glu	Val	Lys	Asn	Leu		
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gga																	250
Gly																	
70																	

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	Met	Arg	Tyr	His	Ala	Gln	Met	Phe	Phe	Val	Phe	Leu	Val	Glu			
	1				5					10							
acg	ggg	ttt	cgc	cat	gtt	ggc	cag	gct	ggt	ctg	aaa	ctc	ctg	acc	tca		157
Thr	Gly	Phe	Arg	His	Val	Gly	Gln	Ala	Gly	Leu	Lys	Leu	Leu	Thr	Ser		
15				20					25				30				
ggt	gat	cca	ccc	gcc	tcg	gtc	tcc	cga	ggt	gtc	cag	aca	ctg	gaa	ttt		205
Gly	Asp	Pro	Pro	Ala	Ser	Val	Ser	Arg	Gly	Val	Gln	Thr	Leu	Glu	Phe		
				35				40					45				
aaa	ttt	cat	ata	agt	tgc	atg	ttt	cat	gag	cta	tta	att	ctt	ttc	ccc		253
Lys	Phe	His	Ile	Ser	Cys	Met	Phe	His	Glu	Leu	Leu	Ile	Leu	Phe	Pro		
		50					55					60					
cca	acc	att	aaa	aaa	atg	tta	aaa	tac	ctt	tct	tcg	ctt	gca	cgg	ccc	c	302
Pro	Thr	Ile	Lys	Lys	Met	Leu	Lys	Tyr	Leu	Ser	Ser	Leu	Ala	Arg	Pro		
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 tggctggttt ccatgcaatt atgtagaaaa a atg cca tca agt gaa aat gaa 172

Met Pro Ser Ser Glu Asn Glu

1 5  
 aaa gct gta tct cca aag aag gcc tta ctt cct cct aca gtt tct tta 220  
 Lys Ala Val Ser Pro Lys Lys Ala Leu Leu Pro Pro Thr Val Ser Leu

10 15 20  
 tct gct acc tca act tcc tct gaa cca ctt tct tca aat caa cca gca 268  
 Ser Ala Thr Ser Thr Ser Ser Glu Pro Leu Ser Ser Asn Gln Pro Ala

25 30 35  
 tca gtg act gat tat caa aat gta tct ttt tca aac cta act gta aat 316  
 Ser Val Thr Asp Tyr Gln Asn Val Ser Phe Ser Asn Leu Thr Val Asn

40 45 50 55  
 aca tca tgg cag ada aaa tca gcc ttc act cga act gtg tcc cct gga 364  
 Thr Ser Trp Gln Xaa Lys Ser Ala Phe Thr Arg Thr Val Ser Pro Gly

60 65 70  
 tct gta tca cct att cat gga cag gga caa gtg gta gaa act trd kaa 412  
 Ser Val Ser Pro Ile His Gly Gln Gly Gln Val Val Glu Thr Xaa Xaa

75 80 85  
 gcr cag gcc ctt tgt tcc tgg act gca aag aag ata cca ctt gaa ctt 460  
 Ala Gln Ala Leu Cys Ser Trp Thr Ala Lys Lys Ile Pro Leu Glu Leu

90 95 100  
 ctc aaa cat ga 471  
 Leu Lys His  
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 <222> 13..171

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 Met Ile Leu Thr Glu Glu Ile Leu Gln Val Phe Thr Ala

1 5 10  
 aaa cct aag gag atg aga gta aac agt aag tgg cca act caa aga agc 99  
 Lys Pro Lys Glu Met Arg Val Asn Ser Lys Trp Pro Thr Gln Arg Ser

15 20 25  
 atg gac tat gtt gaa aca tgg act ata gct gca att tcc cag tgg tgc 147  
 Met Asp Tyr Val Glu Thr Trp Thr Ile Ala Ala Ile Ser Gln Trp Cys

30 35 40 45  
 agt ttt caa gtg ttt tac ccc agg 171  
 Ser Phe Gln Val Phe Tyr Pro Arg  
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<213> Homo sapiens

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<222> 16..204

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Met Thr Tyr Gly Ser Val Phe Asn Asn Thr Val Ser	
1 5 10	
ata tcc aag gga att ttv atg caa gtg gaw cta cag wcc tct atg ttg	99
Ile Ser Lys Gly Ile Xaa Met Gln Val Xaa Leu Gln Xaa Ser Met Leu	
15 20 25	
acc tac aac aca tgg wag atg atg cac aag aat ata ttc ata cca wan	147
Thr Tyr Asn Thr Trp Xaa Met Met His Lys Asn Ile Phe Ile Pro Xaa	
30 35 40	
wag cca gat tat gat cca gaa wag gct ttg ana gwc tca cta caa ccm	195
Xaa Pro Asp Tyr Asp Pro Glu Xaa Ala Leu Xaa Xaa Ser Leu Gln Pro	
45 50 55 60	
tat gag gct gg	206
Tyr Glu Ala	

<210> 2931

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<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 122..466

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aactgacttg taactgactt ataactgact tgtaatacac tgctactata tcaaaccgac	120
a atg aat tgg aat gaa aaa cca aag agt gct aca tta cca cca ctg tat	169
Met Asn Trp Asn Glu Lys Pro Lys Ser Ala Thr Leu Pro Pro Leu Tyr	
1 5 10 15	
cct aaa agc cag cca cct ttt ttg cac cag tct tta atm mac caa att	217
Pro Lys Ser Gln Pro Pro Phe Leu His Gln Ser Leu Ile Xaa Gln Ile	
20 25 30	
acc aca aca tct cag agt tct ttc agc tat cct gga agt aac caa gaa	265
Thr Thr Thr Ser Gln Ser Ser Phe Ser Tyr Pro Gly Ser Asn Gln Glu	
35 40 45	
gca tgc atg tat ccc ggt aat tca aat cca att tca cag cca ctg ctg	313
Ala Cys Met Tyr Pro Gly Asn Ser Asn Pro Ile Ser Gln Pro Leu Leu	
50 55 60	
aat atc cam mat tat cct caa caa att tct gtt tct gat atg cat aat	361
Asn Ile Xaa Xaa Tyr Pro Gln Gln Ile Ser Val Ser Asp Met His Asn	
65 70 75 80	
ggg aca gtt gtg gcc tca cac act tca gta gaa aga rta acr tat gcc	409
Gly Thr Val Val Ala Ser His Thr Ser Val Glu Arg Xaa Thr Tyr Ala	
85 90 95	

mat gtt aat gga ccc maa caa cta act cam mat ttg cag atg tct tca 457  
 Xaa Val Asn Gly Pro Xaa Gln Leu Thr Xaa Xaa Leu Gln Met Ser Ser  
                   100                                  105                                  110  
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 Gly Val Thr  
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   Met Gly Xaa Leu Ala Leu  
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 cyc gcc tgg ctg cag ccc agg tat agg aag aat gcg tat ctt ttc atc 104  
 Xaa Ala Trp Leu Gln Pro Arg Tyr Arg Lys Asn Ala Tyr Leu Phe Ile  
                                   10                                  15                                  20  
 tat tac tta atc cag ttc tgt ggc cas tct tgg ata ttt gca aat atg 152  
 Tyr Tyr Leu Ile Gln Phe Cys Gly Xaa Ser Trp Ile Phe Ala Asn Met  
                                   25                                  30                                  35  
 aca gtc aga ttc ttt tca ttt gga aaa gat tca atg gtt gac act ttt 200  
 Thr Val Arg Phe Phe Ser Phe Gly Lys Asp Ser Met Val Asp Thr Phe  
                                   40                                  45                                  50  
 tat gct att gga ctt gtg atg cga ctt tgc caa tcc gta tct ctc ctg 248  
 Tyr Ala Ile Gly Leu Val Met Arg Leu Cys Gln Ser Val Ser Leu Leu  
                                   55                                  60                                  65                                  70  
 gaa ctg ctg cac ata tat gtt ggc att gag tca aac cat ctt ctc cca 296  
 Glu Leu Leu His Ile Tyr Val Gly Ile Glu Ser Asn His Leu Leu Pro  
                                   75                                  80                                  85  
 agg ttt ttg cag ctc aca gaa aga ata atc atc ctt ttt gtg gtg atc 344  
 Arg Phe Leu Gln Leu Thr Glu Arg Ile Ile Ile Leu Phe Val Val Ile  
                                   90                                  95                                  100  
 acc agt cga aga gga agt cca acg aga aat atg tgg tgt gtg tgt tat 392  
 Thr Ser Arg Arg Gly Ser Pro Thr Arg Asn Met Trp Cys Val Cys Tyr  
                                   105                                  110                                  115  
 tcg tct ttg gat cta tgg ata tgg tta rgt aca ctt ata gca tgk tda 440  
 Ser Ser Leu Asp Leu Trp Ile Trp Leu Xaa Thr Leu Ile Ala Xaa Xaa  
                                   120                                  125                                  130  
 tca gtc ata gga ata tcc tat gct gtc ttg aca t 474  
 Ser Val Ile Gly Ile Ser Tyr Ala Val Leu Thr  
                                   135                                  140                                  145

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004220" 6567560

<220>  
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 <222> 47..310

<400> 2933

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Asp Thr Leu Glu Leu Phe Leu Ile Gly Asn Asp Ser Tyr Pro Ile Pro
   5                10                15
atc gct ttg aaa aag aaa ggt att gct tgg tgg aca gak aaa aat gtg      151
Ile Ala Leu Lys Lys Lys Gly Ile Ala Trp Trp Thr Xaa Lys Asn Val
  20                25                30                35
aaa ttc aga aat ccc cct gga gga gac aac ctg gaa gaa cga ttt aaa      199
Lys Phe Arg Asn Pro Pro Gly Gly Asp Asn Leu Glu Glu Arg Phe Lys
   40                45                50
ggt aca aca aag cct gtg aac tgg ctt aaa cca gtt tac atg ctg gat      247
Gly Thr Thr Lys Pro Val Asn Trp Leu Lys Pro Val Tyr Met Leu Asp
   55                60                65
tct gac cca gat aat aat gga ttc ata aat gag gat ttt att gtt tgg      295
Ser Asp Pro Asp Asn Asn Gly Phe Ile Asn Glu Asp Phe Ile Val Trp
   70                75                80
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Met Arg Thr Ala Ala
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gggttggtcg actgcagacc ctcatacataa gtctagagcc ggagaag atg ggg aga      176
                               Met Gly Arg
                               1
cgc cgg cct gcg ccc ttt cgt gcc ctc gtg agg ctg gca tgc agg atg      224
Arg Arg Pro Ala Pro Phe Arg Ala Leu Val Arg Leu Ala Cys Arg Met
   5                10                15
gca gga cag ccc ggc cac atg ccc cat gga ggg agt tcc aac aac ctc      272
Ala Gly Gln Pro Gly His Met Pro His Gly Gly Ser Ser Asn Asn Leu
  20                25                30                35
tgc cac acc ctg ggg cct gtg cat cct cct gac cca cag agg cat ccc      320
Cys His Thr Leu Gly Pro Val His Pro Pro Asp Pro Gln Arg His Pro
   40                45                50
aac acg ctg tct ttt cgc tgc tcg ctg gcg gac ttc cag atc gaa aag      368

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Asn Thr Leu Ser Phe Arg Cys Ser Leu Ala Asp Phe Gln Ile Glu Lys  
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 aag ata ggc cga gga cag ttc agc gag gtg tac aag gcc acc tgc ctg 416  
 Lys Ile Gly Arg Gly Gln Phe Ser Glu Val Tyr Lys Ala Thr Cys Leu  
 70 75 80  
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 Leu Asp Arg Lys Thr Val Ala Leu Lys Lys Val  
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 cttct atg ttg cca gga ttt ctc cac aga ttg ctt gca gaa ata agg tat 170  
 Met Leu Pro Gly Phe Leu His Arg Leu Leu Ala Glu Ile Arg Tyr  
 1 5 10 15  
 ttg gta gaa aaa cca aaa tat aaa aaa gca ctt ggc act aag aca ttt 218  
 Leu Val Glu Lys Pro Lys Tyr Lys Lys Ala Leu Gly Thr Lys Thr Phe  
 20 25 30  
 cga att cat act cca cct gca aaa gct aat tgt gtg gcc tgg ttg gga 266  
 Arg Ile His Thr Pro Pro Ala Lys Ala Asn Cys Val Ala Trp Leu Gly  
 35 40 45  
 ggg gct att ttt gga gca tta caa gat ata ctt ggg agc c 306  
 Gly Ala Ile Phe Gly Ala Leu Gln Asp Ile Leu Gly Ser  
 50 55 60

<210> 2936  
 <211> 466  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 57..464

<400> 2936  
 ttccgttatc tggttcttct gtacatccac tgagggctcc cagctgcgtt ggcgac atg 59  
 Met  
 1  
 gcc gac acc ccc aga gat gcc ggg ctc aag cag gcg cct gca tca cgg 107  
 Ala Asp Thr Pro Arg Asp Ala Gly Leu Lys Gln Ala Pro Ala Ser Arg  
 5 10 15  
 aac gag aag gcc ccg gtg gac ttc ggc tac gtg ggg att gac tcc atc 155  
 Asn Glu Lys Ala Pro Val Asp Phe Gly Tyr Val Gly Ile Asp Ser Ile

20	25	30	
ctg gag cag atg cgc cgg aag gcc atg aag cag ggc ttc gag ttc aac			203
Leu Glu Gln Met Arg Arg Lys Ala Met Lys Gln Gly Phe Glu Phe Asn			
35	40	45	
atc atg gtg gtc ggg cag agc ggc ttg ggt aaa tcc acc tta atc aac			251
Ile Met Val Val Gly Gln Ser Gly Leu Gly Lys Ser Thr Leu Ile Asn			
50	55	60	65
acc ctc ttc aaa tcc aaa atc agc cgg aag tgc gtg cag ccc acc tca			299
Thr Leu Phe Lys Ser Lys Ile Ser Arg Lys Ser Val Gln Pro Thr Ser			
70	75	80	
gag gag cgc atc ccc aag acc atc gag atc aag tcc atc acg cac gat			347
Glu Glu Arg Ile Pro Lys Thr Ile Glu Ile Lys Ser Ile Thr His Asp			
85	90	95	
att gag gag aaa ggc gtc cgg atg aag ctg aca gtg att gac aca cca			395
Ile Glu Glu Lys Gly Val Arg Met Lys Leu Thr Val Ile Asp Thr Pro			
100	105	110	
ggg ttc ggg gac cac atc aac aac gag aac tgc tgg cag ccc atc atg			443
Gly Phe Gly Asp His Ile Asn Asn Glu Asn Cys Trp Gln Pro Ile Met			
115	120	125	
ang ttc atc aat gac cag cac ga			466
Xaa Phe Ile Asn Asp Gln His			
130	135		

<210> 2937  
 <211> 253  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 82..252

<400> 2937  
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 gaggcctagt aataatttga a atg acc aaa gga gag gca gaa ctc tta cac 111  
 Met Thr Lys Gly Glu Ala Glu Leu Leu His  
 1 5 10  
 cag agc caa gat ttc tgc ctg agt atc gac cat ttt tcc tcc acc ttg 159  
 Gln Ser Gln Asp Phe Cys Leu Ser Ile Asp His Phe Ser Ser Thr Leu  
 15 20 25  
 aat cca gca tcc ccc tcc caa cat tcc gct acc atc act tct cct gat 207  
 Asn Pro Ala Ser Pro Ser Gln His Ser Ala Thr Ile Thr Ser Pro Asp  
 30 35 40  
 gct tca gat tac aac tct ttt acc cgt ttc acc cag tct ggc ccc t 253  
 Ala Ser Asp Tyr Asn Ser Phe Thr Arg Phe Thr Gln Ser Gly Pro  
 45 50 55

<210> 2938  
 <211> 211  
 <212> DNA  
 <213> Homo sapiens

<220>

<221> CDS  
<222> 58..210

<400> 2938  
actgttgctt cgccgtcacg cccgtcggtg tcacgccctt ccccgcggac accgaga 57  
atg acc cat agc gga aaa ttc tac cgc act acc tcc ctg agg cag cga 105  
Met Thr His Ser Gly Lys Phe Tyr Arg Thr Thr Ser Leu Arg Gln Arg  
1 5 10 15  
ccg gta aga aac aac ctt ttc ttc agg ctt ccc acc acc caa aca cag 153  
Pro Val Arg Asn Asn Leu Phe Phe Arg Leu Pro Thr Thr Gln Thr Gln  
20 25 30  
tcg cag tca act ggc cac tat cac cca cca ccc tgc agg aac aat tac 201  
Ser Gln Ser Thr Gly His Tyr His Pro Pro Pro Cys Arg Asn Asn Tyr  
35 40 45  
cca gcc tcg a  
Pro Ala Ser 211  
50

<210> 2939  
<211> 233  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 53..232

<400> 2939  
catacgttat tgttggtcaa aagccgcagc cctacctgag gctttgagag at atg aac 58  
Met Asn  
1  
acc aat gac ttt tct ttt cct gac tcc cga aat acc aag aaa aag caa 106  
Thr Asn Asp Phe Ser Phe Pro Asp Ser Arg Asn Thr Lys Lys Lys Gln  
5 10 15  
ctt ccc caa atg gac aga aac aga aag tac cct tgg ttg aac aca gag 154  
Leu Pro Gln Met Asp Arg Asn Arg Lys Tyr Pro Trp Leu Asn Thr Glu  
20 25 30  
gcc tgg ttc cag cca tcg tta gac gtg gga agg aac tca gas ccc ctc 202  
Ala Trp Phe Gln Pro Ser Leu Asp Val Gly Arg Asn Ser Xaa Pro Leu  
35 40 45 50  
tcc tac ctc atc ccc aac ccc ttc ccc aca c 233  
Ser Tyr Leu Ile Pro Asn Pro Phe Pro Thr  
55 60

<210> 2940  
<211> 254  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 9..254

004220" 6567560

<400> 2940

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caaacatc atg gaa gaa gaa cag atc atc aag gag gac tcg tgc cat cgc      50
      Met Glu Glu Glu Gln Ile Ile Lys Glu Asp Ser Cys His Arg
      1          5          10
ctt agc ccc gtt aaa ggg gaa ttt cat cag gaa ttt caa ccg gag cct      98
Leu Ser Pro Val Lys Gly Glu Phe His Gln Glu Phe Gln Pro Glu Pro
15          20          25          30
tcc ctt ttg ggt gac agc acc aac tca gga gaa gaa aga gac cag ttt      146
Ser Leu Leu Gly Asp Ser Thr Asn Ser Gly Glu Glu Arg Asp Gln Phe
      35          40          45
act gat aga gca gat ggt ctc cat tcg gaa ttt atg aac tat aag gca      194
Thr Asp Arg Ala Asp Gly Leu His Ser Glu Phe Met Asn Tyr Lys Ala
      50          55          60
agg gca gaa gac tgt gaa gag ctg tta cgg ata gaa gag gat gtg cac      242
Arg Ala Glu Asp Cys Glu Glu Leu Arg Ile Glu Glu Asp Val His
      65          70          75
tgg caa act gag
Trp Gln Thr Glu      254
      80
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<210> 2941

<211> 263

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 103..261

<400> 2941

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tagaccgcc catccaccg cgaccacat ccgatcggtta ccggagcggg aggtgagggg      60
tcggctcgcg gatccagctg cagagcgacg tggggaattg ga atg gtg ctt tgg      114
      Met Val Leu Trp
      1
atc tta tgg agg cca ttt gga ttc tca gga aga ttt ctg aaa ctg gaa      162
Ile Leu Trp Arg Pro Phe Gly Phe Ser Gly Arg Phe Leu Lys Leu Glu
5          10          15          20
agc cat agc ata act gaa tca aaa tcg ttg att cca gta gct tgg aca      210
Ser His Ser Ile Thr Glu Ser Lys Ser Leu Ile Pro Val Ala Trp Thr
      25          30          35
tcc ctg aca cag atg ctt ttg gaa gca cct ggt att ttc tta ttg ggt      258
Ser Leu Thr Gln Met Leu Leu Glu Ala Pro Gly Ile Phe Leu Leu Gly
      40          45          50
cta ag
Leu      263
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<210> 2942

<211> 308

<212> DNA

<213> Homo sapiens



<220>  
 <221> CDS  
 <222> 81..308

<400> 2942

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catgccctct	cccacaagaa	atg aaa gct ctg ttt aag aag aaa acc tat gat				113
		Met Lys Ala Leu Phe Lys Lys Lys Thr Tyr Asp				
		1 5 10				
gag aaa aaa acg tat gat cag caa aag ttt gac agt gaa agg gct gat						161
Glu Lys Lys Thr Tyr Asp Gln Gln Lys Phe Asp Ser Glu Arg Ala Asp						
		15 20 25				
gga act ata tca tct gag ata aaa tca gct aga ggt tca cat cat ttg						209
Gly Thr Ile Ser Ser Glu Ile Lys Ser Ala Arg Gly Ser His His Leu						
		30 35 40				
tcc att tac gct gag aat agt ttg aaa tca gat ggt tac cat aag cga						257
Ser Ile Tyr Ala Glu Asn Ser Leu Lys Ser Asp Gly Tyr His Lys Arg						
		45 50 55				
aca gac agg aaa tcc aga atc att gcw aaa vat gta tct acc tcc aaa						305
Thr Asp Arg Lys Ser Arg Ile Ile Ala Lys Xaa Val Ser Thr Ser Lys						
60 65 70 75						
cct						308
Pro						

<210> 2943  
 <211> 259  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 47..259

<400> 2943

tcctttgctg	tttttyagtc	ttttctccaa	atctaactcc	tcaaga	atg gga tgc	55
					Met Gly Cys	
					1	
ctc cct tat ccc ctg caa aac aaa aac ctc cca gat cct aga atg ttg						103
Leu Pro Tyr Pro Leu Gln Asn Lys Asn Leu Pro Asp Pro Arg Met Leu						
					5 10 15	
aag gct ttc ttc agt agc gaa tta caa aaa gca tgt aaa act cat ggt						151
Lys Ala Phe Phe Ser Ser Glu Leu Gln Lys Ala Cys Lys Thr His Gly						
					20 25 30 35	
ggg tgg ggg gtg gga ggc ttg tta cag gga atg gag ctg gca gtg att						199
Gly Trp Gly Val Gly Gly Leu Leu Gln Gly Met Glu Leu Ala Val Ile						
					40 45 50	
tat ttt gac ttc tct tac aga agt tgc ttt aga gca gtt ggc aca ttt						247
Tyr Phe Asp Phe Ser Tyr Arg Ser Cys Phe Arg Ala Val Gly Thr Phe						
					55 60 65	
atc ccc tgg gca						259
Ile Pro Trp Ala						
					70	

004220" 666E1560

<210> 2944  
<211> 398  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 139..396

<400> 2944  
aaagtcaagc ttttgcacgg aggcgtggca gtctctagca gaggcacccc actggagttg 60  
gtcaatgggg atggtgtgga cagtgcagatc cgttgcctag atgatccacc tgcccagatc 120  
agggaggagg aagatgag atg ggg gcc gct gtg gcc tca ggc aca gcc aaa 171  
Met Gly Ala Ala Val Ala Ser Gly Thr Ala Lys  
1 5 10  
gga gca aga aga cgg cgg cag aac aac tca gct aaa cag tct tgg ctg 219  
Gly Ala Arg Arg Arg Arg Gln Asn Asn Ser Ala Lys Gln Ser Trp Leu  
15 20 25  
ctg agg ctg ttt gag tca aaa ctg ttt gac atc tcc atg gcc atr cat 267  
Leu Arg Leu Phe Glu Ser Lys Leu Phe Asp Ile Ser Met Ala Xaa His  
30 35 40  
acc tgt ata act cca agg agc ctg gag tac aag cct aca ttg gca acc 315  
Thr Cys Ile Thr Pro Arg Ser Leu Glu Tyr Lys Pro Thr Leu Ala Thr  
45 50 55  
ggc tct tct gct ttc gca acg agg acg tgg act tct atc tgc ccc agt 363  
Gly Ser Ser Ala Phe Ala Thr Arg Thr Trp Thr Ser Ile Cys Pro Ser  
60 65 70 75  
tgc kka amc atg tac atc cac atg gat gag gac gt 398  
Cys Xaa Xaa Met Tyr Ile His Met Asp Glu Asp  
80 85

<210> 2945  
<211> 422  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 112..420

<400> 2945  
acttccggtg tgtgagcctg cggttgctac ataaccacgt agtttgagcc atttctgcgt 60  
ctggcgggtc cttctgaact tgtcaccttc gcttgggggtc gcaacgaccc g atg atc 117  
Met Ile  
1  
gat gat cca agc aag gga aaa gaa gcc ttg gcg gag agc gga ggt ttg 165  
Asp Asp Pro Ser Lys Gly Lys Glu Ala Leu Ala Glu Ser Gly Gly Leu  
5 10 15  
gtg ggg gcg ggg aat ggg gtt ttt ttc ccg tcc acg gaa gct ttc tgg 213  
Val Gly Ala Gly Asn Gly Val Phe Phe Pro Ser Thr Glu Ala Phe Trp  
20 25 30

gat ggg ggt gct gtg ctc gca tcc cgg ggg ttg gaa ttg gcg ggg tcc 261  
 Asp Gly Gly Ala Val Leu Ala Ser Arg Gly Leu Glu Leu Ala Gly Ser  
 35 40 45 50  
 tct gtg ccc tgc tgt gag cgt ttc cag gac ttt gac ctc gct cag cct 309  
 Ser Val Pro Cys Cys Glu Arg Phe Gln Asp Phe Asp Leu Ala Gln Pro  
 55 60 65  
 gcc tct ctc cac cct acc tgt gcg acc gct ttc tcg cag tgt gac gtg 357  
 Ala Ser Leu His Pro Thr Cys Ala Thr Ala Phe Ser Gln Cys Asp Val  
 70 75 80  
 gag tgt tac tca atg tcc tta tac ttt cca ttg ctg ttt ttg gta atg 405  
 Glu Cys Tyr Ser Met Ser Leu Tyr Phe Pro Leu Leu Phe Leu Val Met  
 85 90 95  
 ggg aca tta gaa cca tc 422  
 Gly Thr Leu Glu Pro  
 100

<210> 2946  
 <211> 229  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 72..227

<400> 2946  
 ctttgggggg aaggcggggc cagaggcttg aagtgtgggg agaacttggt ctcctctctg 60  
 ctatatgaaa t atg gga gac gac aga ycg ttt gtg tgc aat gcc ccg ggc 110  
 Met Gly Asp Asp Arg Xaa Phe Val Cys Asn Ala Pro Gly  
 1 5 10  
 tgt gga cag aga ttt aca aac gag gac cac ctg gca gtt cat aaa cac 158  
 Cys Gly Gln Arg Phe Thr Asn Glu Asp His Leu Ala Val His Lys His  
 15 20 25  
 aag cat gag atg aca ttg aaa ttt ggc cca gcc cga act gac tca gtc 206  
 Lys His Glu Met Thr Leu Lys Phe Gly Pro Ala Arg Thr Asp Ser Val  
 30 35 40 45  
 atc att gca gat caa acg cca ga 229  
 Ile Ile Ala Asp Gln Thr Pro  
 50

<210> 2947  
 <211> 330  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 24..329

<400> 2947  
 gagatttaat ttgcatccag tct atg gat ggg atg ctg atg gta ttt gag cag 53  
 Met Asp Gly Met Leu Met Val Phe Glu Gln

						1					5					10	
gag	agc	tat	gct	ttt	gga	aga	ttt	ctc	cct	ggc	ttt	ctt	ctg	cct	ggt		101
Glu	Ser	Tyr	Ala	Phe	Gly	Arg	Phe	Leu	Pro	Gly	Phe	Leu	Leu	Pro	Gly		
				15					20					25			
cct	ctt	gcc	tac	agt	tcc	cgt	aca	gat	tcc	ttc	ctt	rmt	gtc	tct	tcc		149
Pro	Leu	Ala	Tyr	Ser	Ser	Arg	Thr	Asp	Ser	Phe	Leu	Xaa	Val	Ser	Ser		
			30				35						40				
tgc	caa	caa	gtg	gaa	agt	tat	aag	tac	cag	gta	ctt	gct	ttt	gca	aca		197
Cys	Gln	Gln	Val	Glu	Ser	Tyr	Lys	Tyr	Gln	Val	Leu	Ala	Phe	Ala	Thr		
		45					50					55					
gat	gca	gat	aaa	agg	cag	gag	act	gaa	cag	caa	aaa	ctt	ggt	tct	gga		245
Asp	Ala	Asp	Lys	Arg	Gln	Glu	Thr	Glu	Gln	Gln	Lys	Leu	Gly	Ser	Gly		
	60					65					70						
aaa	aga	cta	gtt	gtg	gat	tgg	act	cta	aat	att	gga	gag	caa	gcc	ctt		293
Lys	Arg	Leu	Val	Val	Asp	Trp	Thr	Leu	Asn	Ile	Gly	Glu	Gln	Ala	Leu		
	75				80					85				90			
gac	ata	tgt	att	gtc	tct	ttc	aat	cag	tcg	gca	tgc	t					330
Asp	Ile	Cys	Ile	Val	Ser	Phe	Asn	Gln	Ser	Ala	Cys						
			95					100									

<210> 2948  
 <211> 265  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 47..265

<400> 2948	
aaaagttatt ttgsttcgag agaaggcaag tggaaaatac tatgct atg aag att	55
	Met Lys Ile
	1
ctg aag aaa gaa gtc att att gca aag gat gaa gtg gca cac act cta	103
Leu Lys Lys Glu Val Ile Ile Ala Lys Asp Glu Val Ala His Thr Leu	
	5 10 15
act gaa agc aga sta tta aag aac act aga cat ccc ttt tta aca tcc	151
Thr Glu Ser Arg Xaa Leu Lys Asn Thr Arg His Pro Phe Leu Thr Ser	
	20 25 30 35
ttg aaa tat tcc ttc cag aca aaa gac cgt ttg tgt ttt gtg atg gaa	199
Leu Lys Tyr Ser Phe Gln Thr Lys Asp Arg Leu Cys Phe Val Met Glu	
	40 45 50
tat gtt aat ggg ggc gag ctg ttt ttc cat ttg tcg aga gag cgg gtg	247
Tyr Val Asn Gly Gly Glu Leu Phe Phe His Leu Ser Arg Glu Arg Val	
	55 60 65
ttc tct gag gac cgc cac	265
Phe Ser Glu Asp Arg His	
	70

<210> 2949  
 <211> 381  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 69..380

<400> 2949

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gttttgcttg catctgatga gtagaaattc agcctattct ttgttttgga aatacaaaaag      60
atataata atg ata tat gaa gaa gat gct gag gaa tgg gct ctg tac ttg      110
      Met Ile Tyr Glu Glu Asp Ala Glu Glu Trp Ala Leu Tyr Leu
            1             5             10
aca gaa gta ttt tta cat gtt gtg aaa agg gaa gcc atc ctg tta tat      158
Thr Glu Val Phe Leu His Val Val Lys Arg Glu Ala Ile Leu Leu Tyr
15             20             25             30
cgc ttg gag aat ttc tct ttt cgg cat ttg gag ttg ctg aac tta acg      206
Arg Leu Glu Asn Phe Ser Phe Arg His Leu Glu Leu Leu Asn Leu Thr
            35             40             45
tct tac aaa tgt aaa ctt ttg ata tta tca aat agc ctg ctt aga gac      254
Ser Tyr Lys Cys Lys Leu Leu Ile Leu Ser Asn Ser Leu Leu Arg Asp
            50             55             60
cta act cca aag aaa tgt cag ttt ctg gaa aag ata ctt cat tca cca      302
Leu Thr Pro Lys Lys Cys Gln Phe Leu Glu Lys Ile Leu His Ser Pro
            65             70             75
aaa agt gta gtt act ttg ctt tgt gga gtg aag agt tca gat cag ctc      350
Lys Ser Val Val Thr Leu Leu Cys Gly Val Lys Ser Ser Asp Gln Leu
            80             85             90
tat gaa tta cta aat atc tct caa agc aga t      381
Tyr Glu Leu Leu Asn Ile Ser Gln Ser Arg
95             100

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<210> 2950  
 <211> 352  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 111..350

<400> 2950

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tttattgaaa tcaactagag atgatgtgat ccaaattctgt ggccctgcag atggaatcag      60
actttttaat gcattaaaag gccggatggg gcgtccaagg ttaaccattt atg ttt      116
                        Met Phe
                        1
gts asg gaa tca ctg cag ttg agg gag cag caa caa cag cag cag caa      164
Val Xaa Glu Ser Leu Gln Leu Arg Glu Gln Gln Gln Gln Gln Gln
            5             10             15
cag cag cag aag cat gag gat ggm sac tca aat ggt act ttc ttc gtt      212
Gln Gln Gln Lys His Glu Asp Gly Xaa Ser Asn Gly Thr Phe Phe Val
            20             25             30
tac cat gct atc tat cta gaa gaa cta aca gct gtt gaa ttg aca gav      260
Tyr His Ala Ile Tyr Leu Glu Glu Leu Thr Ala Val Glu Leu Thr Xaa
35             40             45             50

```



gac agt gta ctt ttg gga atg gaa gga tgc gtt aag ctc act gac ttt	20	25	30	204
Asp Ser Val Leu Leu Gly Met Glu Gly Ser Val Lys Leu Thr Asp Phe				
ggt ttc tgt gcc cag atc acc cct gag cag agc aaa cgc agt acc gtg	35	40	45	252
Gly Phe Cys Ala Gln Ile Thr Pro Glu Gln Ser Lys Arg Ser Thr Val				
gtc aga acg cca tac tgg atg gca cca gaa gtg gtt aca cgg aag gct	50	55	60	300
Val Arg Thr Pro Tyr Trp Met Ala Pro Glu Val Val Thr Arg Lys Ala				
tat ggc cct aaa gtc aat gta tgg tct ctg ggt atc atg gct act gag	65	70	75	348
Tyr Gly Pro Lys Val Asn Val Trp Ser Leu Gly Ile Met Ala Thr Glu				
atg gta gaa gga gag cct cca tac ccc	85	90	95	375
Met Val Glu Gly Glu Pro Pro Tyr Pro				
	100	105		

<210> 2953  
 <211> 459  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 17..457

cattgtttsk ggstct atg gat gaa tct gtc aaa gaa aag tat gca ggt caa				52
Met Asp Glu Ser Val Lys Glu Lys Tyr Ala Gly Gln				
	1	5	10	
gat att gtt ttc aag tgc ctt gga gag aat atc ctg cag aat gct ttt				100
Asp Ile Val Phe Lys Cys Leu Gly Glu Asn Ile Leu Gln Asn Ala Phe				
gat ggc tac aat gca tgt atc ttt gcc tat gga cag act ggc tct gga	15	20	25	148
Asp Gly Tyr Asn Ala Cys Ile Phe Ala Tyr Gly Gln Thr Gly Ser Gly				
aaa tct tat acc atg atg ggc aca gct ggg rra cct gga tta atc cca	30	35	40	196
Lys Ser Tyr Thr Met Met Gly Thr Ala Gly Xaa Pro Gly Leu Ile Pro				
aga ctt tgc agt gga ctc ttt gaa cga act cag aaa gag gaa aat gaa	45	50	55	244
Arg Leu Cys Ser Gly Leu Phe Glu Arg Thr Gln Lys Glu Glu Asn Glu				
gaa cag agt ttt aaa gta gaa gtg tcc tac atg gaa att tat aat gaa	65	70	75	292
Glu Gln Ser Phe Lys Val Glu Val Ser Tyr Met Glu Ile Tyr Asn Glu				
aaa gtt cga gac ctt ctt gat ccc aaa gga agc cgt cag acg ttg aaa	80	85	90	340
Lys Val Arg Asp Leu Leu Asp Pro Lys Gly Ser Arg Gln Thr Leu Lys				
gtc aga gag cat agt gtg ttg gga cct tat gtc gac gga ctt tct aaa	95	100	105	388
Val Arg Glu His Ser Val Leu Gly Pro Tyr Val Asp Gly Leu Ser Lys				
ctg gct gtc aca agc tac aag gat att gag tgc ttg atg tct gag ggt	110	115	120	436
Leu Ala Val Thr Ser Tyr Lys Asp Ile Glu Ser Leu Met Ser Glu Gly				

125                      130                      135                      140                      459  
aac aaa tct cgc aca gtt gct gc  
Asn Lys Ser Arg Thr Val Ala  
145

<210> 2954  
<211> 436  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 225..434

<400> 2954  
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atggctctta ttattttgag atatgttcct ttgataccta gtctgttgag gggttttatc 120  
atgagggatg ttggatttta tccgtattca ataaatggtg ttgggataas bkggctaggs 180  
sgagtgcaga agaatgaaac tggaccccc acctttcacc gtat atg aaa att aac 236  
Met Lys Ile Asn  
1  
tca aga tgg att aaa gat tta aat gta aga cct caa act gta aaa atc 284  
Ser Arg Trp Ile Lys Asp Leu Asn Val Arg Pro Gln Thr Val Lys Ile  
5 10 15 20  
cta gaa gar aac cta gga aat acc ctt atc aac atc agc ctt ggc aaa 332  
Leu Glu Glu Asn Leu Gly Asn Thr Leu Ile Asn Ile Ser Leu Gly Lys  
25 30 35  
gaa ctt ttg gct aag tcc cca aag gca att gcr aca raa cag ara ttg 380  
Glu Leu Leu Ala Lys Ser Pro Lys Ala Ile Ala Thr Xaa Gln Xaa Leu  
40 45 50  
gca agt ggg gac cta att aaa gca ctc tgc acw gcr aaa gac act atc 428  
Ala Ser Gly Asp Leu Ile Lys Ala Leu Cys Thr Ala Lys Asp Thr Ile  
55 60 65  
aac aga gt 436  
Asn Arg  
70

<210> 2955  
<211> 319  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 86..319

<400> 2955  
aaaactgacc caactctgca gcactcagaa gacgaagcaa agccttctac ttgagcagtt 60  
tttccatcac tgatatgtgc aggaa atg aag aca ttg cct gcc atg ctt gga 112  
Met Lys Thr Leu Pro Ala Met Leu Gly  
1 5  
act ggg aaa tta ttt tgg gtc ttc ttc tta atc cca tat ctg gac atc 160



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Thr Gly Lys Leu Phe Trp Val Phe Phe Leu Ile Pro Tyr Leu Asp Ile
10          15          20          25
tgg aac atc cat ggg aaa gaa tca tgt gat gta cag ctt tat ata aag
Trp Asn Ile His Gly Lys Glu Ser Cys Asp Val Gln Leu Tyr Ile Lys
30          35          40
aga caa tct gaa cac tcc atc tta gca gga gat ccc ttt gaa cta gaa
Arg Gln Ser Glu His Ser Ile Leu Ala Gly Asp Pro Phe Glu Leu Glu
45          50          55
tgc cct gtg aaa tac tgt gct aac agg cct cat gtg act tgg tgc aag
Cys Pro Val Lys Tyr Cys Ala Asn Arg Pro His Val Thr Trp Cys Lys
60          65          70
ctc aat gga aca acc
Leu Asn Gly Thr Thr
75

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208  
256  
304  
319

<210> 2956  
<211> 426  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 239..424

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<400> 2956
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gatcaacaaa attgataggc cgctagcaag actaataaag aaaaaaagag agaagaatca
aatagacaca ataaaaaatg acaaagggga tatcaccacc gatcccacat aaatacaaac
taccatcaga gaatactaca aacacctcta cacaaatrra ctagaaaatc cagaagaa
atg gat aaa ttc ctc gac aca tac act ctc cca aga cta aac cag gaa
Met Asp Lys Phe Leu Asp Thr Tyr Thr Leu Pro Arg Leu Asn Gln Glu
1          5          10          15
gaa gct gaa tct ctg aat aga cca ata aca gga tct gaa att gtg gca
Glu Ala Glu Ser Leu Asn Arg Pro Ile Thr Gly Ser Glu Ile Val Ala
20          25          30
ata atc aat agc tta cca acc aaa aag agt gcn gga cta gat gga ttc
Ile Ile Asn Ser Leu Pro Thr Lys Lys Ser Ala Gly Leu Asp Gly Phe
35          40          45
aca gcc gaa ttg tac cng agg tnc hag gag gag ctg gta gcg tt
Thr Ala Glu Leu Tyr Xaa Arg Xaa Xaa Glu Glu Leu Val Ala
50          55          60

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60  
120  
180  
238  
286  
334  
382  
426

<210> 2957  
<211> 481  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 230..481

<400> 2957

004220" 022400 09513999

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 tgtattgagt actgtagaca attgtaacac aaggattgta aacctggct gtgtggatac 120  
 aagctcagca gctccaagga gaagcccttc atcagatgca agcggttatat ggccagcatt 180  
 ttcccattga ggtgcggcat tatttatccc agtggattga aagccaagc atg gag aac 238  
 Met Glu Asn

1  
 att aag gcc acc cag ctc ctg gag ggc ctg gtg cag gag ctg cag aag 286  
 Ile Lys Ala Thr Gln Leu Leu Glu Gly Leu Val Gln Glu Leu Gln Lys  
 5 10 15

aag gca gag cac cag gtg ggg gaa gat ggg ttt tta ctg aag atc aag 334  
 Lys Ala Glu His Gln Val Gly Glu Asp Gly Phe Leu Leu Lys Ile Lys  
 20 25 30 35

ctg ggg cac tat gcc acg sag ctc cag aac acg tat gac cgc tgc ccc 382  
 Leu Gly His Tyr Ala Thr Xaa Leu Gln Asn Thr Tyr Asp Arg Cys Pro  
 40 45 50

atg gag ctg gtc cgc tgc atc cgc cat ata ttg tac aat gaa cag agg 430  
 Met Glu Leu Val Arg Cys Ile Arg His Ile Leu Tyr Asn Glu Gln Arg  
 55 60 65

ttg gtc cga gaa gcc aac aat ggt agc tct cca gct gga agc ctt gct 478  
 Leu Val Arg Glu Ala Asn Asn Gly Ser Ser Pro Ala Gly Ser Leu Ala  
 70 75 80

gat 481  
 Asp

<210> 2958  
 <211> 187  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 14..187

<400> 2958  
 acacacattg ggg atg agt ctc tgt cca cct ctg tct gtt aga tat gag 49  
 Met Ser Leu Cys Pro Pro Leu Ser Val Arg Tyr Glu  
 1 5 10

tcc cct cct gct tcc cct tgt cag gta cgt gtc tcc atc tgt ttt cta 97  
 Ser Pro Pro Ala Ser Pro Cys Gln Val Arg Val Ser Ile Cys Phe Leu  
 15 20 25

ttg gat atg aat tcc tcc tgc ctc tgc ctg ttg ggt gcg tgt cct tat 145  
 Leu Asp Met Asn Ser Ser Cys Leu Cys Leu Leu Gly Ala Cys Pro Tyr  
 30 35 40

cct cca tcc ctg cct gtt ggg tat gtg ttc tct cct gcc att 187  
 Pro Pro Ser Leu Pro Val Gly Tyr Val Phe Ser Pro Ala Ile  
 45 50 55

<210> 2959  
 <211> 318  
 <212> DNA  
 <213> Homo sapiens

<220>

<221> CDS  
<222> 151..318

<400> 2959

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agaacaaagc aggaaagcgt astganagcg tcctgtgacg gccagcagga gctcaccttt      60
acaaacaaac tccttgccgg gcctttgggt tggcgatttg cccagacaag aagcttaaga      120
cttcgaagct gcattgcttc gaggcaccca atg ctt gaa agt gag gac gca gag      174
                               Met Leu Glu Ser Glu Asp Ala Glu
                               1           5
aaa gtc ctg caa gtg tgt ttg gat gag atc acc ttt tgg act tgt tca      222
Lys Val Leu Gln Val Cys Leu Asp Glu Ile Thr Phe Trp Thr Cys Ser
   10           15           20
agg tcc ttc agc tat tta gtt ccc atg ttt gat ggt gaa aat gga ctc      270
Arg Ser Phe Ser Tyr Leu Val Pro Met Phe Asp Gly Glu Asn Gly Leu
   25           30           35           40
agc agc tat tgc ctt tgg caa aag gta ctt ggt ctg atc cac agt cgt      318
Ser Ser Tyr Cys Leu Trp Gln Lys Val Leu Gly Leu Ile His Ser Arg
           45           50           55

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<210> 2960  
<211> 359  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 116..358

<400> 2960

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agacgtccct ggggtccgggt gttcgcggaa gagtcgagca gaagaataga aggaaggtga      60
taggatgtga tgatagaatt tgtgatagcc aagcaacaac ttttcctaata tcggc atg      118
                               Met
                               1
tta aaa aat aag ggt cac tca tct aag aaa gat aac ttg gca gtc aat      166
Leu Lys Asn Lys Gly His Ser Ser Lys Lys Asp Asn Leu Ala Val Asn
           5           10           15
gca gtt gct tta caa gat cac att tta cat gat ctt caa ctt cga aat      214
Ala Val Ala Leu Gln Asp His Ile Leu His Asp Leu Gln Leu Arg Asn
           20           25           30
ctt tca gtt gca gat cat tct aag aca caa gta caa aag ana gag aac      262
Leu Ser Val Ala Asp His Ser Lys Thr Gln Val Gln Lys Xaa Glu Asn
           35           40           45
aaa tct cta aaa aga gat aca aag gca ata ata gat act gga ctt aaa      310
Lys Ser Leu Lys Arg Asp Thr Lys Ala Ile Ile Asp Thr Gly Leu Lys
           50           55           60           65
ara act aca cag tgc ccc aaa cta gaa gac tca gaa aaa gaa tat gtt c      359
Xaa Thr Thr Gln Cys Pro Lys Leu Glu Asp Ser Glu Lys Glu Tyr Val
           70           75           80

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<210> 2961  
<211> 440  
<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 99..440

<400> 2961

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attcgcaggt gattttttca tcgtgtgggg atctggatct gcttgagcac cagacaagct      60
tggatatcttc tgaggacggt gcccgagagc aggagaac atg gat gac aca aac agc      116
                               Met Asp Asp Thr Asn Ser
                               1           5
gag cag cag ttt aga gtc ttc aga gac ttc gac ttc cta gat gtg gag      164
Glu Gln Gln Phe Arg Val Phe Arg Asp Phe Asp Phe Leu Asp Val Glu
              10           15           20
ctg gag gat gga gag ggt gag agt atg gac aat ttc aac tgg gga gtg      212
Leu Glu Asp Gly Glu Gly Glu Ser Met Asp Asn Phe Asn Trp Gly Val
              25           30           35
cgc aga cgt tct ctg gac agc ctg gat aag tgt gat atg cag att ctg      260
Arg Arg Arg Ser Leu Asp Ser Leu Asp Lys Cys Asp Met Gln Ile Leu
              40           45           50
gag gag cgc caa ctg tca gga agc act cct agc ctg aat aaa atg cac      308
Glu Glu Arg Gln Leu Ser Gly Ser Thr Pro Ser Leu Asn Lys Met His
55           60           65           70
cat gag gac tcc gat gaa tca tcc gag gag gag gac ctc aca gcc agc      356
His Glu Asp Ser Asp Glu Ser Ser Glu Glu Glu Asp Leu Thr Ala Ser
              75           80           85
cag atc ctg gag cac tca gac cta atc atg act ctc tcc ccc tct gaa      404
Gln Ile Leu Glu His Ser Asp Leu Ile Met Thr Leu Ser Pro Ser Glu
              90           95          100
grg acg aat ccc atg gag ctg ctc acc aca gcc tgt      440
Xaa Thr Asn Pro Met Glu Leu Leu Thr Thr Ala Cys
              105           110
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<210> 2962

<211> 294

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 19..294

<400> 2962

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acggacagat ttattgga atg cat gga gct ggt ctg acc tat tta ctt ttc      51
                               Met His Gly Ala Gly Leu Thr Tyr Leu Leu Phe
                               1           5           10
ctt cca gac tgg gct gct gta ttt gaa ctg tac aac tgt gaa gat gaa      99
Leu Pro Asp Trp Ala Ala Val Phe Glu Leu Tyr Asn Cys Glu Asp Glu
              15           20           25
cgc tgt tac tta gac ttg gcc agg ctg aga ggc gtt cac tac atc act      147
Arg Cys Tyr Leu Asp Leu Ala Arg Leu Arg Gly Val His Tyr Ile Thr
              30           35           40
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tgg cga cgg cag aac aaa gtc ttt cct cag gat aag ggc cac cat cca	195
Trp Arg Arg Gln Asn Lys Val Phe Pro Gln Asp Lys Gly His His Pro	
45 50 55	
acc ctg ggg gag cac ccg aag ttc acc aac tac tct ttc gat gta gaa	243
Thr Leu Gly Glu His Pro Lys Phe Thr Asn Tyr Ser Phe Asp Val Glu	
60 65 70 75	
gaa ttt atg tat ctt gtc ctt cag gct gca gac cac gta ttg caa cac	291
Glu Phe Met Tyr Leu Val Leu Gln Ala Ala Asp His Val Leu Gln His	
80 85 90	
ccc	294
Pro	

<210> 2963  
 <211> 441  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 198..440

<400> 2963	
aggaggactc attttcagga cacttgtgac agtctaataca tagggcacca cctaagggtgg	60
cagcataaac acagtctgtc ccagactgt aaccagatgc tcctacttga gaccaaacag	120
caaatggggtt aggtccaag ccagaagaga gctgggggtc ccaccttctg tcctctccat	180
ggttttctac aaggagc atg tcc cac ttt caa cat tgt aaa aaa tgt gca	230
Met Ser His Phe Gln His Cys Lys Lys Cys Ala	
1 5 10	
agc ctt gtt tct gtt tct aaa agc agc ctg act gct gaa gct tac ctt	278
Ser Leu Val Ser Val Ser Lys Ser Ser Leu Thr Ala Glu Ala Tyr Leu	
15 20 25	
cag tca agg gaa aga ttt cac tca tct tct ggc ggg cca tcc tgr cct	326
Gln Ser Arg Glu Arg Phe His Ser Ser Ser Gly Gly Pro Ser Xaa Pro	
30 35 40	
tgg aac aat ttg caa tcc ctg cct cat gtg caa tcc cag cat gct ggg	374
Trp Asn Asn Leu Gln Ser Leu Pro His Val Gln Ser Gln His Ala Gly	
45 50 55	
ctc atc tct cca gct aca tct caa acc acc ggc ctc tca aca tgg cag	422
Leu Ile Ser Pro Ala Thr Ser Gln Thr Thr Gly Leu Ser Thr Trp Gln	
60 65 70 75	
cca gct tcg tgt act caa a	441
Pro Ala Ser Cys Thr Gln	
80	

<210> 2964  
 <211> 269  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 108..269

&lt;400&gt; 2964

cttaacacga aatgttgggt attaagtagt ttcaccacaa aagtctcggt ttgaaaattt 60  
 tgcacttaaa cagttcaa at taaagttcgt ttttagaact gggtttt atg att gtc 116  
 Met Ile Val  
 1  
 tgt ata agt cct ttt aac ttt cta ctc tta tct cac cat tcc ctg aag 164  
 Cys Ile Ser Pro Phe Asn Phe Leu Leu Leu Ser His His Ser Leu Lys  
 5 10 15  
 ctg cag aga aaa tcc ttt gat tgg tgt tca aga gtt gta cct ttt ata 212  
 Leu Gln Arg Lys Ser Phe Asp Trp Cys Ser Arg Val Val Pro Phe Ile  
 20 25 30 35  
 gaa aac agg ata gat ggc atc act tta ata agg cag gtg cat gct ttg 260  
 Glu Asn Arg Ile Asp Gly Ile Thr Leu Ile Arg Gln Val His Ala Leu  
 40 45 50  
 aag cca gtc  
 Lys Pro Val 269

&lt;210&gt; 2965

&lt;211&gt; 416

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 108..416

&lt;400&gt; 2965

attcccsbcc gcccccttct ctaagctgca cagcctgaat agaagggtg gtccagcggc 60  
 ggcggagggt ggcgctgtcc tgagaggag ggctctgtgc ggaagag atg aat cgg 116  
 Met Asn Arg  
 1  
 aca aag ggt gat gag gag gag tat tgg aac agc tcc aag ttc aag gct 164  
 Thr Lys Gly Asp Glu Glu Glu Tyr Trp Asn Ser Ser Lys Phe Lys Ala  
 5 10 15  
 ttt acc ttt gac gat gaa gac gat gag ctt tca cag tta aag gag tcc 212  
 Phe Thr Phe Asp Asp Glu Asp Asp Glu Leu Ser Gln Leu Lys Glu Ser  
 20 25 30 35  
 aag cgg gcg gtg aac agc ctc cga gac ttc gtg gat gat gat gac gat 260  
 Lys Arg Ala Val Asn Ser Leu Arg Asp Phe Val Asp Asp Asp Asp Asp  
 40 45 50  
 gat gac ctg gag cga gtc agc tgg agt ggg gaa cct gtg gga agt atc 308  
 Asp Asp Leu Glu Arg Val Ser Trp Ser Gly Glu Pro Val Gly Ser Ile  
 55 60 65  
 tca tgg tcc atc aga gag act gct ggt aat agc ggc tca acc cac gag 356  
 Ser Trp Ser Ile Arg Glu Thr Ala Gly Asn Ser Gly Ser Thr His Glu  
 70 75 80  
 ggg cgt gaa cag cta aag agc cga aac agc ttc tcc tcc tat gca caa 404  
 Gly Arg Glu Gln Leu Lys Ser Arg Asn Ser Phe Ser Ser Tyr Ala Gln  
 85 90 95  
 cta ccc aag cct  
 Leu Pro Lys Pro 416  
 100

<210> 2966  
 <211> 329  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 112..327

<400> 2966  
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 tgggtggagct gttatctagg ccatagccac agaagagatc actcaggctg c atg ttt 117  
 Met Phe  
 1  
 ttc aaa gtg ggt tcc ata gaa ccc ctc ttc atg cac agc tca tta ttt 165  
 Phe Lys Val Gly Ser Ile Glu Pro Leu Phe Met His Ser Ser Leu Phe  
 5 10 15  
 agg ata agc agc tct cca ctc cag aga cta cat ggg ccc cta gac agc 213  
 Arg Ile Ser Ser Ser Pro Leu Gln Arg Leu His Gly Pro Leu Asp Ser  
 20 25 30  
 caa ctg gag gca cct ctc tgc ttt aga aga acc cag caa att tgc ttt 261  
 Gln Leu Glu Ala Pro Leu Cys Phe Arg Arg Thr Gln Gln Ile Cys Phe  
 35 40 45 50  
 tct ttc act tcc tgc cga ctt cat gcc ttg tta acg agg tas acg agg 309  
 Ser Phe Thr Ser Cys Arg Leu His Ala Leu Leu Thr Arg Xaa Thr Arg  
 55 60 65  
 ttg acg aca cca tcc aga cc 329  
 Leu Thr Thr Pro Ser Arg  
 70

<210> 2967  
 <211> 221  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 11..220

<400> 2967  
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 Met Gln Leu Leu Asp Val Pro Pro Gly Glu Asp Lys Gly  
 1 5 10  
 gga tat gtg atc aaa gca tca gaa ggg cct gct ttc ttc ccc ggg cga 97  
 Gly Tyr Val Ile Lys Ala Ser Glu Gly Pro Ala Phe Phe Pro Gly Arg  
 15 20 25  
 tgt gca gag atc ttt gcc agg ggt caa agc gtc ggg aag ctt ggg gtc 145  
 Cys Ala Glu Ile Phe Ala Arg Gly Gln Ser Val Gly Lys Leu Gly Val  
 30 35 40 45  
 ctt cat cct gac gtt atc acc aaa ttt gag ctg acc atg ccc tgc tcc 193  
 Leu His Pro Asp Val Ile Thr Lys Phe Glu Leu Thr Met Pro Cys Ser

50 55 60  
tcc cta gaa atc aat att gga ccc att c 221  
Ser Leu Glu Ile Asn Ile Gly Pro Ile  
65 70

<210> 2968  
<211> 416  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 40..414

<400> 2968  
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Met Ser Asp Leu Gly  
1 5  
tcg gar gag ttg gag gag gag gga gas aat gat att ggg gtg aga gct 102  
Ser Glu Glu Leu Glu Glu Glu Gly Xaa Asn Asp Ile Gly Val Arg Ala  
10 15 20  
cct gga gag tgg gca aat gac ctg cgg cac ggc cat ggc gta tac tac 150  
Pro Gly Glu Trp Ala Asn Asp Leu Arg His Gly His Gly Val Tyr Tyr  
25 30 35  
tac atc aat aat gac acc tac act gga gag tgg ttt gct cat caa agg 198  
Tyr Ile Asn Asn Asp Thr Tyr Thr Gly Glu Trp Phe Ala His Gln Arg  
40 45 50  
cat ggg caa ggc acc tat tta tac gca gag acg ggc agt aag tat gtt 246  
His Gly Gln Gly Thr Tyr Leu Tyr Ala Glu Thr Gly Ser Lys Tyr Val  
55 60 65  
ggc acc tgg gtg aac gga cag cag gag ggc acg gcc gag ctc att cac 294  
Gly Thr Trp Val Asn Gly Gln Gln Glu Gly Thr Ala Glu Leu Ile His  
70 75 80 85  
ctg aac cac agg tac cag ggc aag ttc ttg aac aaa aat cct gtt ggc 342  
Leu Asn His Arg Tyr Gln Gly Lys Phe Leu Asn Lys Asn Pro Val Gly  
90 95 100  
cct gga aag tat gta ttt gat gtt ggg tgt gaa caa cat ggt gaa tat 390  
Pro Gly Lys Tyr Val Phe Asp Val Gly Cys Glu Gln His Gly Glu Tyr  
105 110 115  
cgt tta aca gat atg gaa aga ggc ca 416  
Arg Leu Thr Asp Met Glu Arg Gly  
120 125

<210> 2969  
<211> 252  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 50..250



<400> 2969

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Met Asp Lys  
1  
gat gcc aag aaa aga atc cat aat ttc tct gtc atc aat cct gtt cct 106  
Asp Ala Lys Lys Arg Ile His Asn Phe Ser Val Ile Asn Pro Val Pro  
5 10 15  
gga caa gct ata act cag att ttt gca gtt gac aat aga gaa gat ctt 154  
Gly Gln Ala Ile Thr Gln Ile Phe Ala Val Asp Asn Arg Glu Asp Leu  
20 25 30 35  
cag aag tgg atg gaa gcc ttc tgg cag cat ttc ttt gat ctt agc caa 202  
Gln Lys Trp Met Glu Ala Phe Trp Gln His Phe Phe Asp Leu Ser Gln  
40 45 50  
tgg aag cac tgt tgt gaa gaa ctt atg aaa att gag att atg tca cca 250  
Trp Lys His Cys Cys Glu Glu Leu Met Lys Ile Glu Ile Met Ser Pro  
55 60 65  
cg 252

<210> 2970

<211> 368

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 134..367

<400> 2970

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agagctcaaaa gccamadrtdt gagaagggca gagataactg tatccactct ggactgctga 120  
cctttgaact att atg tta ttt cca ggg aaa tgc aaa cca aag gat gtg 169  
Met Leu Phe Pro Gly Lys Cys Lys Pro Lys Asp Val  
1 5 10  
gtc tct gat cta atc ctt aga gaa tgt gac cat gaa gac act ttt cct 217  
Val Ser Asp Leu Ile Leu Arg Glu Cys Asp His Glu Asp Thr Phe Pro  
15 20 25  
acc tgg tca aaa ggg gca gga att gga gar rac gtc tac aaa gct tcc 265  
Thr Trp Ser Lys Gly Ala Gly Ile Gly Glu Xaa Val Tyr Lys Ala Ser  
30 35 40  
aac acc atg gcc ctg ggg gtg acm tcc tgc gta ccc tgc ctg ccc ctc 313  
Asn Thr Met Ala Leu Gly Val Thr Ser Ser Val Pro Cys Leu Pro Leu  
45 50 55 60  
ccc aac atc cta ctc atg gcc agt gtc aaa tgg cac cag ggg cag aac 361  
Pro Asn Ile Leu Leu Met Ala Ser Val Lys Trp His Gln Gly Gln Asn  
65 70 75  
cag aca t 368  
Gln Thr

<210> 2971

<211> 299

<212> DNA

<213> Homo sapiens

<220>  
 <221> CDS  
 <222> 48..299

<400> 2971

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					Met	Phe	Arg	
					1			
gat	ttc	gga	cgc	cga	ctg	cag	agg	104
Asp	Phe	Gly	Arg	Arg	Leu	Gln	Arg	
5					10			
agg	ctg	agg	ctc	agc	gag	gag	ctc	
Arg	Leu	Arg	Leu	Ser	Glu	Glu	Leu	152
20				25				
cct	gtg	gag	gtc	cag	gtg	gtc	acg	
Pro	Val	Glu	Val	Gln	Val	Val	Thr	200
				40				
tgg	ttc	gga	ggc	tcc	atg	ctg	gcc	
Trp	Phe	Gly	Gly	Ser	Met	Leu	Ala	248
				55				
tgc	cac	acc	aag	aag	gac	tat	gaa	
Cys	His	Thr	Lys	Lys	Asp	Tyr	Glu	296
				70				
cag								
Gln								299

<210> 2972  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 165..389

<400> 2972

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tccccacccc	gacctggggc	ctcataccat	cccactatca	tgggtagtgc	ctaccactgg	120
gaggcccggc	gccggcagat	ggctttggac	cgaagagatg	gctg	atg	176
					Met	
					Ala	
					Gln	
					Gln	
					1	
cag	cag	gag	ctg	cag	cag	224
Gln	Gln	Glu	Leu	Gln	Gln	
5				10		
gaa	gaa	caa	caa	tcg	gag	
Glu	Glu	Gln	Gln	Ser	Glu	272
				25		
gtg	ccg	caa	cca	cca	gtg	
Val	Pro	Gln	Pro	Pro	Val	320
				40		
cag	cca	tca	cag	cag	cag	
Gln	Pro	Ser	Gln	Gln	Gln	368
				45		
				50		

004220" 6667560

55 60 65 391  
cca cag cca tca aca ttg cca ca  
Pro Gln Pro Ser Thr Leu Pro  
70 75

<210> 2973  
<211> 454  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 299..454

<400> 2973  
agtcagtagc tcgcagtgga gggaggagga gctccaactg tgctctttga tggcagtttt 60  
tgcacctttg ggtgcttgtc atgttcgttt atttttcaaa gaagacagca ggtccctgac 120  
ctcatagacc agctagtttg ggaggtggcg gcagaataag ggctgaggac ccagatctgc 180  
ctggggtcag gctgcttcta aaagtgcagg gccaccctca gtagtggtggc tgctagggca 240  
gcacagttac aatttcgctg aaggctgagg caggagtgga gaggcattgga gaggcccc 298  
atg ggg aat ata ctg acc tgt hgt atc aac tcc cac tgt ggc tgg ccc 346  
Met Gly Asn Ile Leu Thr Cys Xaa Ile Asn Ser His Cys Gly Trp Pro  
1 5 10 15  
agg ggg aag gac gca ccc tgt tat gaa tct gat act gat att tat gag 394  
Arg Gly Lys Asp Ala Pro Cys Tyr Glu Ser Asp Thr Asp Ile Tyr Glu  
20 25 30  
act gtg gct gct gca aca tca gaa tcc act act gta gag cct ggc aag 442  
Thr Val Ala Ala Ala Thr Ser Glu Ser Thr Thr Val Glu Pro Gly Lys  
35 40 45  
ctg gat gtg gga  
Leu Asp Val Gly 454  
50

<210> 2974  
<211> 443  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 52..441

<400> 2974  
gttggttaccg ttcacagtgg aaggcagagg aaatcgcccc tggttcctaga a atg tgc 57  
Met Cys  
1  
ttt atc aga gat ctt aaa atc ctt gca cgt ttg atg act gcc aaa ttc 105  
Phe Ile Arg Asp Leu Lys Ile Leu Ala Arg Leu Met Thr Ala Lys Phe  
5 10 15  
ttg cat aca gaa att cga gaa aaa ggc ggt gct tat ggt gga ggc gca 153  
Leu His Thr Glu Ile Arg Glu Lys Gly Gly Ala Tyr Gly Gly Gly Ala  
20 25 30

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aaa ctc agc cac aat ggg att ttc acc ctt tac tct tac agg gac cca      201
Lys Leu Ser His Asn Gly Ile Phe Thr Leu Tyr Ser Tyr Arg Asp Pro
35          40          45          50
aat aca ata gag acg ctc cag tct ttt ggg aag gct gtc gac tgg gct      249
Asn Thr Ile Glu Thr Leu Gln Ser Phe Gly Lys Ala Val Asp Trp Ala
55          60          65
aag tct gga aaa ttc aca cag caa gac atc gac gaa gbb aaa ctt tct      297
Lys Ser Gly Lys Phe Thr Gln Gln Asp Ile Asp Glu Xaa Lys Leu Ser
70          75          80
gtc nnc tca acc ata gat gct cct gtc gct cct tca gac aaa gga gag      345
Val Xaa Ser Thr Ile Asp Ala Pro Val Ala Pro Ser Asp Lys Gly Glu
85          90          95
cag gag cct ggg gtc gag gcc cag ggk ccc ggt ytg ctg ctg tgg att      393
Gln Glu Pro Gly Val Glu Ala Gln Gly Pro Gly Leu Leu Leu Trp Ile
100         105         110
gra act gac aca tgg cag ata tgg aac ggt cct tat agt tgg aac aga      441
Xaa Thr Asp Thr Trp Gln Ile Trp Asn Gly Pro Tyr Ser Trp Asn Arg
115         120         125         130
ac
443

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<210> 2975  
 <211> 247  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 68..247

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<400> 2975
tgccctggacc aagctactcc agatcatctg accaactctt aaaaatcacg gccaggcaca      60
gtggctc atg cct gta atc cca kca ctt tgg gaa gca gag gtg gca gga      109
Met Pro Val Ile Pro Xaa Leu Trp Glu Ala Glu Val Ala Gly
1          5          10
tca ttc cag ccc agg agt tca aga cca gcc tgg gca aca cag cct cct      157
Ser Phe Gln Pro Arg Ser Ser Arg Pro Ala Trp Ala Thr Gln Pro Pro
15         20         25         30
ccc aag gag aac atg aga cca ctt cat atc tgg aac tct aga aac act      205
Pro Lys Glu Asn Met Arg Pro Leu His Ile Trp Asn Ser Arg Asn Thr
35         40         45
ggc tgc agc aat caa cct cct gtg cca agg ctg gcc cct atg      247
Gly Cys Ser Asn Gln Pro Pro Val Pro Arg Leu Ala Pro Met
50         55         60

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<210> 2976  
 <211> 228  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 29..226

&lt;400&gt; 2976

ttctcataac attccartgm ggcttttt atg caa tgg cat gtt tca gtg ata	52
Met Gln Trp His Val Ser Val Ile	
1 5	
aaa gtt cca gtt atg tat ctc gac gat gtg aca cag tsa cag tcc cta	100
Lys Val Pro Val Met Tyr Leu Asp Asp Val Thr Gln Xaa Gln Ser Leu	
10 15 20	
aag gag gtc atc aca gat ttt sts asa caa act cat aaa ctg tsa ctc	148
Lys Glu Val Ile Thr Asp Phe Xaa Xaa Gln Thr His Lys Leu Xaa Leu	
25 30 35 40	
tac ctt tgc sag ast atg aaa gta ggc act aaa gga cca ggc gat aac	196
Tyr Leu Cys Xaa Xaa Met Lys Val Gly Thr Lys Gly Pro Gly Asp Asn	
45 50 55	
tta cac caa gkk gca cct gas cta ctc ctc cc	228
Leu His Gln Xaa Ala Pro Xaa Leu Leu	
60 65	

&lt;210&gt; 2977

&lt;211&gt; 375

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 14..373

&lt;400&gt; 2977

agatgcaggg gcc atg gca ctc tta aca ccc cag gga gtg aaa gaa gtc	49
Met Ala Leu Leu Thr Pro Gln Gly Val Lys Glu Val	
1 5 10	
ttc caa ttt cag aga cca caa ggt cgg gag cgc ctg cgg agg ctt ctg	97
Phe Gln Phe Gln Arg Pro Gln Gly Arg Glu Arg Leu Arg Arg Leu Leu	
15 20 25	
aac tgg gak gag ttt gac gaa cag aga gcc cgg agg agc atc ctg ctg	145
Asn Trp Xaa Glu Phe Asp Glu Gln Arg Ala Arg Ser Ile Leu Leu	
30 35 40	
gac acc ctc tac gag agc atc atc ttt gca gtg ggc aaa ggc ttc cca	193
Asp Thr Leu Tyr Glu Ser Ile Ile Phe Ala Val Gly Lys Gly Phe Pro	
45 50 55 60	
tgg gtg gag gtg gcc cag gtg gtc aag ttc aca gaa gag ctg cta agg	241
Trp Val Glu Val Ala Gln Val Val Lys Phe Thr Glu Glu Leu Leu Arg	
65 70 75	
gaa acc aaa ggc tgc tcc att act gag gct gtg acg atc ctg ggg aac	289
Glu Thr Lys Gly Cys Ser Ile Thr Glu Ala Val Thr Ile Leu Gly Asn	
80 85 90	
aag ctt aga gat tac cgg ggc cat ttc aac acc acc cac ctg ctg gcc	337
Lys Leu Arg Asp Tyr Arg Gly His Phe Asn Thr Thr His Leu Leu Ala	
95 100 105	
ctc tgt gac tac ttc cac cac acc ttc atc cgc cac ta	375
Leu Cys Asp Tyr Phe His His Thr Phe Ile Arg His	
110 115 120	

<210> 2978  
 <211> 416  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 87..416

<400> 2978  
 gggtagagc ggcgcgygtg tccagtcgc ggaacgggga gatcgttggc accttcgctt 60  
 ttttagggga acgggggatag ttcgcc atg gag cca gag agg gaa ggg acc gag 113  
 Met Glu Pro Glu Arg Glu Gly Thr Glu  
 1 5  
 aga cac ccc agg aag gtc agg gaa agc agg cag gcc cca aat aag ctg 161  
 Arg His Pro Arg Lys Val Arg Glu Ser Arg Gln Ala Pro Asn Lys Leu  
 10 15 20 25  
 gtc ggg gca gct gag gcg atg aaa gcc ggt tgg gat ctc gaa gag agt 209  
 Val Gly Ala Ala Glu Ala Met Lys Ala Gly Trp Asp Leu Glu Glu Ser  
 30 35 40  
 cag ccc gag gcc aag aaa gcc cgc tta tct acc att tta ttt act gac 257  
 Gln Pro Glu Ala Lys Lys Ala Arg Leu Ser Thr Ile Leu Phe Thr Asp  
 45 50 55  
 aac tgt gaa gta acc cat gac cag ctg tgt gaa ttg ctg aag tat gca 305  
 Asn Cys Glu Val Thr His Asp Gln Leu Cys Glu Leu Leu Lys Tyr Ala  
 60 65 70  
 gtt ctg ggc aaa tcc aat gtt cca aaa ccc agc tgg tgc cag ctt ttt 353  
 Val Leu Gly Lys Ser Asn Val Pro Lys Pro Ser Trp Cys Gln Leu Phe  
 75 80 85  
 cat caa aac cac cta aac aac gta gtg gtt ttt gtt ctg cag gga atg 401  
 His Gln Asn His Leu Asn Asn Val Val Val Phe Val Leu Gln Gly Met  
 90 95 100 105  
 agt cag cta cac ttt 416  
 Ser Gln Leu His Phe  
 110

<210> 2979  
 <211> 199  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 47..199

<400> 2979  
 tgaagatcta asgaatgggg aagagaagaa agggataaga taagag atg ctg aaa 55  
 Met Leu Lys  
 1  
 ggt att ctt aat aga ctt aag tat ttt act tgg gtt atg ctc ttt tct 103  
 Gly Ile Leu Asn Arg Leu Lys Tyr Phe Thr Trp Val Met Leu Phe Ser  
 5 10 15

ata att ttc act ggc tca tta gaa gta gaa aag ttt ata agt aga gaa	151
Ile Ile Phe Thr Gly Ser Leu Glu Val Glu Lys Phe Ile Ser Arg Glu	
20 25 30 35	
ttt aat aga aga wag gca ggt aat gtt gtt gag atg tgt ggg gtc aga	199
Phe Asn Arg Arg Xaa Ala Gly Asn Val Val Glu Met Cys Gly Val Arg	
40 45 50	

<210> 2980  
 <211> 283  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 130..282

<400> 2980	
acctttgact tactgatgag ttaaggaagg actgaagaca aaagaaacta tgggctgctc	60
tctctttccc tttctttcta tgtcaccatt ttcacttaag tggttggtcg atacaaggaa	120
Met Leu Cys Ala Asn Gly Ile Gly Arg Asn Gly Ser Met His	171
1 5 10	
tat gca cac ctc tcc tct gct cag act caa att atc gaa act tca gag	219
Tyr Ala His Leu Ser Ser Ala Gln Thr Gln Ile Ile Glu Thr Ser Glu	
15 20 25 30	
gaa aaa ttt aaa ctt tcc tac acc aga atc agc ttg aga gaw gaa cct	267
Glu Lys Phe Lys Leu Ser Tyr Thr Arg Ile Ser Leu Arg Xaa Glu Pro	
35 40 45	
agt tgc cac ccc ggc c	283
Ser Cys His Pro Gly	
50	

<210> 2981  
 <211> 330  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 173..328

<400> 2981	
aggggatcgt ggtccgtccg gaggtggcgg gagggcagct ccgggctcga cccagcgtgg	60
gtcctgcctg aggccctttg cgcctccgc tccaggactc gaagtgtcgt ttcggggccg	120
ctgtctacgg ggagaggagg tggcgggtgcc gcctggcctc gtgggatacg tg atg gtg	178
Met Val	
1	
aca gaa gag aag aag gtg tgc atg ggg aag cca gac ccc ttg cgg gat	226
Thr Glu Glu Lys Lys Val Ser Met Gly Lys Pro Asp Pro Leu Arg Asp	
5 10 15	
tcc ggg act gac gac caa gag gag gag ccg ctg gag cgg gac ttc gac	274
Ser Gly Thr Asp Asp Gln Glu Glu Glu Pro Leu Glu Arg Asp Phe Asp	

20 25 30  
 cgc ttc att gga gcc act gcc aac ttc agc cgc ttc acc ctg tgg ggt 322  
 Arg Phe Ile Gly Ala Thr Ala Asn Phe Ser Arg Phe Thr Leu Trp Gly  
 35 40 45 50  
 ctg gag ac 330  
 Leu Glu

<210> 2982  
 <211> 438  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 65..436

<400> 2982  
 actcccagaa tgctgaccaa agtgggagga gcactaggtc ttcccgtcac ctccacctct 60  
 ctcc atg acc cgg ctc tgc tta ccc aga ccc gaa gca cgt gag gat ccg 109  
 Met Thr Arg Leu Cys Leu Pro Arg Pro Glu Ala Arg Glu Asp Pro  
 1 5 10 15  
 atc cca gtt cct cca agg ggc ctg ggt gct ggg gag ggg tca ggt agt 157  
 Ile Pro Val Pro Pro Arg Gly Leu Gly Ala Gly Glu Gly Ser Gly Ser  
 20 25 30  
 cca gtg cgt cca cct gta tcc acc tgg ggc cct agc tgg gcc cag ctc 205  
 Pro Val Arg Pro Pro Val Ser Thr Trp Gly Pro Ser Trp Ala Gln Leu  
 35 40 45  
 ctg gac agt gtc cta tgg ctg ggg gca cta gga ctg aca atc cag gca 253  
 Leu Asp Ser Val Leu Trp Leu Gly Ala Leu Gly Leu Thr Ile Gln Ala  
 50 55 60  
 gtc ttt tcc acc act ggc cca gcc ctg ctg ctg ctt ctg gtc agc ttc 301  
 Val Phe Ser Thr Thr Gly Pro Ala Leu Leu Leu Leu Leu Val Ser Phe  
 65 70 75  
 ctc acc ttt gac ctg ctc cat agg ccc gca gtc aca ctc tgc cac agc 349  
 Leu Thr Phe Asp Leu Leu His Arg Pro Ala Val Thr Leu Cys His Ser  
 80 85 90 95  
 gca aac ttc tca cca ggg gcc aga gtc agg ggg ccg gtg aag gtc ctg 397  
 Ala Asn Phe Ser Pro Gly Ala Arg Val Arg Gly Pro Val Lys Val Leu  
 100 105 110  
 gac agc agg agg ctc tac tcc tgc aaa tgg gta cag tct ca 438  
 Asp Ser Arg Arg Leu Tyr Ser Cys Lys Trp Val Gln Ser  
 115 120

<210> 2983  
 <211> 416  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 90..416



<400> 2983

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ggggcctgtc gtccgggcaa cccgggagcg tttgtccaca caatttctgc tccgactctg      60
cggactactg cagtggagct tgactctta atg tct ggc agt aag aaa aag aaa      113
                               Met Ser Gly Ser Lys Lys Lys Lys
                               1                               5

gtc acc aaa gct gaa cga ttg aag ctg cta caa gag gag gag gag aga      161
Val Thr Lys Ala Glu Arg Leu Lys Leu Leu Gln Glu Glu Glu Glu Arg
      10                               15                               20

cga ctg aaa gag gaa gag gaa gcc cgt ttg aaa tat gag aaa gaa gaa      209
Arg Leu Lys Glu Glu Glu Glu Ala Arg Leu Lys Tyr Glu Lys Glu Glu
      25                               30                               35                               40

atg gaa agg ctt gaa ata cag cga att gag aaa gaa aaa tgg cat cga      257
Met Glu Arg Leu Glu Ile Gln Arg Ile Glu Lys Glu Lys Trp His Arg
                               45                               50                               55

ctt gaa gca aaa gat cta gaa agg aga aat gam gaa ctt gaa gaa ctt      305
Leu Glu Ala Lys Asp Leu Glu Arg Arg Asn Xaa Glu Leu Glu Glu Leu
      60                               65                               70

tat tta tta gag agg tgt ttt cct gaa gca gag aaa ttg ara cag gaa      353
Tyr Leu Leu Glu Arg Cys Phe Pro Glu Ala Glu Lys Leu Xaa Gln Glu
      75                               80                               85

act raa ttg ctt tct cag tgg aag cac tac att caa tgt gat ggg agt      401
Thr Xaa Leu Leu Ser Gln Trp Lys His Tyr Ile Gln Cys Asp Gly Ser
      90                               95                               100

cct gat cct tca gta
Pro Asp Pro Ser Val
105

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<210> 2984

<211> 262

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 97..261

<400> 2984

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attggctgat ccctcatgaa tatgtagatt actctcacc ttcacctcgc tctggaaaaa      60
ccagccacca tggtgtaagg atgctcaagt agcact atg gag att cac acg tgg      114
                               Met Glu Ile His Thr Trp
                               1                               5

caa aga gct gag gcc tcc cac caa cag cca cat gag gga gcc aga gta      162
Gln Arg Ala Glu Ala Ser His Gln Gln Pro His Glu Gly Ala Arg Val
      10                               15                               20

gga gtg gct cct cca gcc cca gtc gaa cct tca gat gtg aca gac ttg      210
Gly Val Ala Pro Pro Ala Pro Val Glu Pro Ser Asp Val Thr Asp Leu
      25                               30                               35

gct gct gac agt ttg caa tct cat gag acc ctg agc cag aac cac cca      258
Ala Ala Asp Ser Leu Gln Ser His Glu Thr Leu Ser Gln Asn His Pro
      40                               45                               50

gct t
Ala
55

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<210> 2985  
 <211> 459  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 254..457

<400> 2985  
 tccttcctct ccwtccctttt cttaggaggc ctcatgcctc agtttgactg gctggtctta 60  
 ttgtcttcca ggaaactgag gccatgggga cacataggtc ctcttcccag caatctcccc 120  
 agggatccaa ggcacctctg ggaaagccac agcccttctc tgggccgcag ttttctcatt 180  
 ggagaagtgc ctgggacagc tctagacctc attgactgag ctgcccagag ggacacttga 240  
 gatttagggg tgc atg tgt gtg agc tgt gtg tgt gtg agt gtg tgg gtg 289  
                   Met Cys Val Ser Cys Val Cys Val Ser Val Trp Val  
                   1                  5                  10  
 tcc aca gac ttt aga act gca gcc cta gaa cat ttg tca ggt tac ggg 337  
 Ser Thr Asp Phe Arg Thr Ala Ala Leu Glu His Leu Ser Gly Tyr Gly  
                   15                  20                  25  
 ggg aga aag aga ctg aag cga ggg ctg ttc tct agg acc acc agg atc 385  
 Gly Arg Lys Arg Leu Lys Arg Gly Leu Phe Ser Arg Thr Thr Arg Ile  
                   30                  35                  40  
 cca cag gac ttt cca gcg cct gtg tct cca tcc tct ccc cgc agc ctt 433  
 Pro Gln Asp Phe Pro Ala Pro Val Ser Pro Ser Ser Pro Arg Ser Leu  
 45                  50                  55                  60  
 gct cct tcg ggt gtt tca gat ccc ct 459  
 Ala Pro Ser Gly Val Ser Asp Pro  
                   65

<210> 2986  
 <211> 260  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 103..258

<400> 2986  
 caaattagaa gaaaataact taaaaattca acaattgaag aatagtttat gagttgaatt 60  
 aggtatctta aatgtgtaat tcagggcctg gcgcagtggc tc atg cct gtg atc 114  
   Met Pro Val Ile  
   1  
 cca gca ctt tgg gag gct gag ggg ggt gga tcg ctt gag gtc ggg agt 162  
 Pro Ala Leu Trp Glu Ala Glu Gly Gly Gly Ser Leu Glu Val Gly Ser  
 5                  10                  15                  20  
 ttg aga cca gcc tgg cca ata ccc ccg tct cta cta aaa ata caa aaa 210  
 Leu Arg Pro Ala Trp Pro Ile Pro Pro Ser Leu Leu Lys Ile Gln Lys  
                   25                  30                  35  
 tta gcc ggg cat ggt ggt gca tgc ctg tgg tcc cgg cta ctc ggg tgg 258

Leu Ala Gly His Gly Gly Ala Cys Leu Trp Ser Arg Leu Leu Gly Trp  
 40 45 50  
 ca

260

<210> 2987  
 <211> 183  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 5..181

<400> 2987  
 caag atg ctg gat gca gcc gtg att aag atg gaa gga ggc acg gwg aat 49  
 Met Leu Asp Ala Ala Val Ile Lys Met Glu Gly Gly Thr Xaa Asn  
 1 5 10 15  
 gat ctc cgc atc ctg gag cag gag gag gag gag gag cag gca gga aag 97  
 Asp Leu Arg Ile Leu Glu Gln Glu Glu Glu Glu Glu Gln Ala Gly Lys  
 20 25 30  
 cct ggg gag ccc agc aag aaa gaa gaa gga cgg gct gga gca ggc cta 145  
 Pro Gly Glu Pro Ser Lys Lys Glu Glu Gly Arg Ala Gly Ala Gly Leu  
 35 40 45  
 ggg gac ggg gag cgc aaa acc aac gac aag gag gag aa 183  
 Gly Asp Gly Glu Arg Lys Thr Asn Asp Lys Glu Glu  
 50 55

<210> 2988  
 <211> 183  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 28..183

<400> 2988  
 cttcttcctc ctcgggcgcc cgcggcg atg ttc aac cgc gcc gtg agc cgg ctg 54  
 Met Phe Asn Arg Ala Val Ser Arg Leu  
 1 5  
 agc agg aag cgg ccg ccg tca gac atc cac gac agc gat ggc agt kcc 102  
 Ser Arg Lys Arg Pro Pro Ser Asp Ile His Asp Ser Asp Gly Ser Xaa  
 10 15 20 25  
 agc agc agc cac cag agc ctc aag agc aca gcc aaa tgg gcg gca tcc 150  
 Ser Ser Ser His Gln Ser Leu Lys Ser Thr Ala Lys Trp Ala Ala Ser  
 30 35 40  
 ctg gag aat ctr ctg gaa gac cca gaa ggc gtg 183  
 Leu Glu Asn Leu Leu Glu Asp Pro Glu Gly Val  
 45 50

<210> 2989  
 <211> 171

<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 18..170

<400> 2989  
acaagtccgg tgactct atg tat cga aca ctt cat ctg agt aca gaa cag 50  
Met Tyr Arg Thr Leu His Leu Ser Thr Glu Gln  
1 5 10  
gtg gcc gca ttt tgc cgc agt ttg cat gag atg aac ccc tct gac cag 98  
Val Ala Ala Phe Cys Arg Ser Leu His Glu Met Asn Pro Ser Asp Gln  
15 20 25  
agc cca tct cct cag gac tcc acg ggg cct cag ctg gcg acc atg aga 146  
Ser Pro Ser Pro Gln Asp Ser Thr Gly Pro Gln Leu Ala Thr Met Arg  
30 35 40  
caa ctc tcg gat gca gat aag ctg c 171  
Gln Leu Ser Asp Ala Asp Lys Leu  
45 50

<210> 2990  
<211> 369  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 94..369

<400> 2990  
agaggagaag gctgggtatg aggaaactgc tgtcttttca ctggatcaga cgtaaatt 60  
aactggacct ctcttttagat tctttgctca ata atg aat tgt ttt cag ggc acc 114  
Met Asn Cys Phe Gln Gly Thr  
1 5  
aat gcc tct gct ctg gaa aaa gac att ggt cca gag cag ttt cca atc 162  
Asn Ala Ser Ala Leu Glu Lys Asp Ile Gly Pro Glu Gln Phe Pro Ile  
10 15 20  
aat gaa cac tat ttc gga ttg gtc aat ttt gga aac aca tgc tac tgt 210  
Asn Glu His Tyr Phe Gly Leu Val Asn Phe Gly Asn Thr Cys Tyr Cys  
25 30 35  
aac tcc gtg ctt cag gca ttg tac tcc tgc cgt cca ttc cgg gag aat 258  
Asn Ser Val Leu Gln Ala Leu Tyr Ser Cys Arg Pro Phe Arg Glu Asn  
40 45 50 55  
gtg ttg gca tac aag gcc cag caa aag aag aag gaa aac ttg ctg acg 306  
Val Leu Ala Tyr Lys Ala Gln Gln Lys Lys Lys Glu Asn Leu Leu Thr  
60 65 70  
tgc ctg gcg gac ctt ttc cac agc att gcc aca sag aag aag aag gtt 354  
Cys Leu Ala Asp Leu Phe His Ser Ile Ala Thr Xaa Lys Lys Lys Val  
75 80 85  
gbr tca tcc cac ctg 369  
Xaa Ser Ser His Leu

90

<210> 2991  
<211> 194  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 31..192

<400> 2991  
tatatatata attttatttta tttatttgag atg gag tct cac tct gtc gcc cag 54  
Met Glu Ser His Ser Val Ala Gln  
1 5  
gct gga gtg cag tgg cat gag ctc ggc tgc ctg cag cct ccg cct ccc 102  
Ala Gly Val Gln Trp His Glu Leu Gly Ser Leu Gln Pro Pro Pro Pro  
10 15 20  
agg ttc aag caa ttc tcc tgc ctc agc ttc gct cat agc tgg aat tgc 150  
Arg Phe Lys Gln Phe Ser Cys Leu Ser Phe Ala His Ser Trp Asn Cys  
25 30 35 40  
ggg cgc gcg cca cca tgc ctg gct aat ttt ttt ttt ttt ttt tt 194  
Gly Arg Ala Pro Pro Cys Leu Ala Asn Phe Phe Phe Phe Phe  
45 50

<210> 2992  
<211> 396  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 173..394

<400> 2992  
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cgggtggtgkv agccccctgg actcgattcc tgaggcaaac agtgcccctk aaggtcggcg 120  
acascctcttc tgggttcact gcagtccaac cggttcccta ccctctgcca tt atg aac 178  
Met Asn  
1  
atc cgc aac gct cag cca gac gac ctg atg aat atg caa cac tgc aac 226  
Ile Arg Asn Ala Gln Pro Asp Asp Leu Met Asn Met Gln His Cys Asn  
5 10 15  
ctc ctt tgc ctt cct gag aac tac cag atg aaa tac tat tta tat cat 274  
Leu Leu Cys Leu Pro Glu Asn Tyr Gln Met Lys Tyr Tyr Leu Tyr His  
20 25 30  
ggc ctt tcc tgg ccc cag ctt tct tac atc gct gag gat gag gac ggg 322  
Gly Leu Ser Trp Pro Gln Leu Ser Tyr Ile Ala Glu Asp Glu Asp Gly  
35 40 45 50  
aag att gtg ggc tat gtt ctg gcc aaa atg gag gag gaa cca gat gat 370  
Lys Ile Val Gly Tyr Val Leu Ala Lys Met Glu Glu Glu Pro Asp Asp  
55 60 65

gtc ccg cat ggc cat atc acc tca ct  
Val Pro His Gly His Ile Thr Ser  
70

396

<210> 2993  
<211> 217  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 32..217

<400> 2993  
cagagatatc ttgratggaa tcagawtaat a atg gca gat aag gag gtt ggt 52  
Met Ala Asp Lys Glu Val Gly  
1 5  
aac aag gaa gat gct gmg aag gaa gta gct att tct acc ttc tca tcc 100  
Asn Lys Glu Asp Ala Xaa Lys Glu Val Ala Ile Ser Thr Phe Ser Ser  
10 15 20  
agt aac hag gta tcc tgc ccg cta tgt gac caa tgc ttt cca ccc aca 148  
Ser Asn Xaa Val Ser Cys Pro Leu Cys Asp Gln Cys Phe Pro Pro Thr  
25 30 35  
aag att gaa cga cat gcc atg tac tgc aat ggt ctg atg gag gaa gat 196  
Lys Ile Glu Arg His Ala Met Tyr Cys Asn Gly Leu Met Glu Glu Asp  
40 45 50 55  
aca gta ttg act cgg agc caa 217  
Thr Val Leu Thr Arg Ser Gln  
60

<210> 2994  
<211> 296  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 25..294

<400> 2994  
actttgagcc gtggccgttg ccag atg tcc aca atg gga aac gag gcc agt 51  
Met Ser Thr Met Gly Asn Glu Ala Ser  
1 5  
tac ccg gcg gag atg tgc tcc cac ttt gac aat gat gaa att aaa agg 99  
Tyr Pro Ala Glu Met Cys Ser His Phe Asp Asn Asp Glu Ile Lys Arg  
10 15 20 25  
ctg ggc agg agg ttt aag aag ttg gac ttg gac aaa tca ggg tct ctg 147  
Leu Gly Arg Arg Phe Lys Lys Leu Asp Leu Asp Lys Ser Gly Ser Leu  
30 35 40  
agc gtg gag gag ttc atg tcc ctg ccg gag ctg cgc cac aac ccg ttg 195  
Ser Val Glu Glu Phe Met Ser Leu Pro Glu Leu Arg His Asn Pro Leu  
45 50 55

gtg	cgg	cga	gtg	atc	gac	gtc	ttc	gac	acc	gac	ggt	gat	gga	gaa	gtg	243
Val	Arg	Arg	Val	Ile	Asp	Val	Phe	Asp	Thr	Asp	Gly	Asp	Gly	Glu	Val	
	60						65				70					
gac	ttc	aag	gaa	ttc	atc	ctg	ggg	acc	tcc	cag	ttc	agc	gtc	aag	ggc	291
Asp	Phe	Lys	Glu	Phe	Ile	Leu	Gly	Thr	Ser	Gln	Phe	Ser	Val	Lys	Gly	
	75					80					85					
gac	ag															296
Asp																
90																

<210> 2995

<211> 390

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 179..388

<400> 2995

gagttggatt	ctatcctgca	agggcacggg	gacccacaac	gacggctgtc	cctaaagaac	60
cgttgcgact	ggtaactgaa	gtggaagaga	gtccagattt	cttgtgtgtg	gtcaaggaga	120
cggacaaact	ttttgtcttc	agacgaggga	gcgttttgta	ggctctccag	gggttgag	178
atg att cct	gct tct gcg	aag gct ccc	cat aaa	cag cct	cat aag	226
Met Ile Pro	Ala Ser Ala	Lys Ala Pro	His Lys	Gln Pro	His Lys	Gln
1	5	10	15			
agc atc agc	ata ggc aga	gga acc agg	aag aga	gat gaa	gat tca	ggg
Ser Ile Ser	Ile Gly Arg	Gly Thr Arg	Lys Arg	Asp Glu	Asp Ser	Gly
	20	25	30			
act gaa gtg	gga gaa ggc	aca gat gaa	tgg gcc	caa tcc	aaa gcc	aca
Thr Glu Val	Gly Glu Gly	Thr Asp Glu	Trp Ala	Gln Ser	Lys Ala	Thr
	35	40	45			
gtt aga scc	cct gac cag	ctg grg ttg	acc gat gcg	gar tta	aag gag	
Val Arg Xaa	Pro Asp Gln	Leu Xaa Leu	Thr Asp	Ala Glu	Leu Lys	Glu
	50	55	60			
gag ttc act	cgg att ttg	ac				
Glu Phe Thr	Arg Ile Leu					
65	70					

<210> 2996

<211> 219

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 61..219

<400> 2996

agaaggaaga	agtctttcct	ggagctgcaa	gctgcatgtc	ctggggttgg	aagaggagtg	60
atg caa gta	cta cat tgg	ctg ctc cag	ctg gct ggt	atc tta	aaa aag	108
Met Gln Val	Leu His Trp	Leu Leu Gln	Leu Ala	Gly Ile	Leu Lys	Lys

1	5	10	15	
gga aaa cat caa agg caa act cat gtg aca acc tcc ttg gaa cag aaa	156			
Gly Lys His Gln Arg Gln Thr His Val Thr Thr Ser Leu Glu Gln Lys				
20	25	30		
ttt gcc cca aat ttt gaa ttt act atc ttt cca ttt aag ttt cag aaa	204			
Phe Ala Pro Asn Phe Glu Phe Thr Ile Phe Pro Phe Lys Phe Gln Lys				
35	40	45		
tta aaa aag agc gca	219			
Leu Lys Lys Ser Ala				
50				

<210> 2997  
 <211> 448  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 58..447

<400> 2997			
aactctgggtt tgyttacccc cgacctctgc tctttcttcc tctgtttctc ccagccc	57		
atg ara ccc ctg aag gcc acc gcc acc acc tcc cag ccc gtg ctc acc	105		
Met Xaa Pro Leu Lys Ala Thr Ala Thr Thr Ser Gln Pro Val Leu Thr			
1	5	10	15
atc cag cag atc gag acc atc ttc tac aag atc cag gac atc tat gag	153		
Ile Gln Gln Ile Glu Thr Ile Phe Tyr Lys Ile Gln Asp Ile Tyr Glu			
20	25	30	
atc cac aag gag ttc tat gac aac ctg tgc ccc aag gtg caa cag tgg	201		
Ile His Lys Glu Phe Tyr Asp Asn Leu Cys Pro Lys Val Gln Gln Trp			
35	40	45	
gac agc cag gtc acc atg ggc cac ctc ttc cag aag ctg gcc agc cag	249		
Asp Ser Gln Val Thr Met Gly His Leu Phe Gln Lys Leu Ala Ser Gln			
50	55	60	
ctc ggt gtg tac aaa gcg ttt gtc gat aac tat aaa gtc gct ctg gag	297		
Leu Gly Val Tyr Lys Ala Phe Val Asp Asn Tyr Lys Val Ala Leu Glu			
65	70	75	80
aca gct gag aag tgc agc cag tcc aac aac cag ttc cag aag atc tca	345		
Thr Ala Glu Lys Cys Ser Gln Ser Asn Asn Gln Phe Gln Lys Ile Ser			
85	90	95	
gag gaa ctc aaa gtg aaa ggt ccc aag gac tcc aag gac agc sac acg	393		
Glu Glu Leu Lys Val Lys Gly Pro Lys Asp Ser Lys Asp Ser Xaa Thr			
100	105	110	
tct gts acc atg gaa gct ctg ctc tac aag ccc att gac cgg gtc act	441		
Ser Val Thr Met Glu Ala Leu Leu Tyr Lys Pro Ile Asp Arg Val Thr			
115	120	125	
cgg agc a	448		
Arg Ser			
130			

<210> 2998  
 <211> 204  
 <212> DNA



<213> Homo sapiens

<220>

<221> CDS

<222> 23..202

<400> 2998

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ccttcttcta ccatttgaac at atg gag tat att tat att tat ttt att tta      52
                        Met Glu Tyr Ile Tyr Ile Tyr Phe Ile Leu
                        1           5           10
ttt tat ttt ttt gag atg aac tct tgc tgt ttc gcc cag gct gga gtg      100
Phe Tyr Phe Phe Glu Met Asn Ser Cys Cys Phe Ala Gln Ala Gly Val
                        15           20           25
cag tgg cgt gat ctc ggc tca ctg caa cct cca tct ccc ggg ttc aag      148
Gln Trp Arg Asp Leu Gly Ser Leu Gln Pro Pro Ser Pro Gly Phe Lys
                        30           35           40
caa ttc tct tgc ctc agc ctc ctg agt agc tgg gac tac cgg cac ccg      196
Gln Phe Ser Cys Leu Ser Leu Leu Ser Ser Trp Asp Tyr Arg His Pro
                        45           50           55
cca cca cc
Pro Pro
                        60      204
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<210> 2999

<211> 431

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 71..430

<400> 2999

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aatccaggcc ctstgcycc asaccctywc ctctttctaa tgggggtggta aacgaggagg      60
ggcaactcag atg cct aag aag ctt ggg ccc aaa tct cag aga cag cgt      109
                        Met Pro Lys Lys Leu Gly Pro Lys Ser Gln Arg Gln Arg
                        1           5           10
ggg gct gtt gcc ccc ctc acc cag gtc cag cag gcg gcc tgt tcc ccc      157
Gly Ala Val Ala Pro Leu Thr Gln Val Gln Gln Ala Ala Cys Ser Pro
                        15           20           25
act tat aaa cag gcc aag cgc aat gcc agg agc tat cag ggc cgc cgc      205
Thr Tyr Lys Gln Ala Lys Arg Asn Ala Arg Ser Tyr Gln Gly Arg Arg
                        30           35           40           45
tgc cgc cgt cgt tgc agc cag aat acc act tcc agg gtt cct agc caa      253
Cys Arg Arg Arg Cys Ser Gln Asn Thr Thr Ser Arg Val Pro Ser Gln
                        50           55           60
ctg caa gca gtt gac tct tca tct gct tcc tgc agg acc tac aag aac      301
Leu Gln Ala Val Asp Ser Ser Ser Ala Ser Cys Arg Thr Tyr Lys Asn
                        65           70           75
agt gag gag ctt cgg tct cgt att gtg tct gga atc atc aca cct atc      349
Ser Glu Glu Leu Arg Ser Arg Ile Val Ser Gly Ile Ile Thr Pro Ile
                        80           85           90
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cat gag cag tgg gaa aag gct aat gta agc agt cvn acc ggg agt tcs 397  
 His Glu Gln Trp Glu Lys Ala Asn Val Ser Ser Xaa Thr Gly Ser Ser  
 95 100 105  
 hcm tgc tam cgc cag aga ggt gga cca mtc cgg c 431  
 Xaa Cys Xaa Arg Gln Arg Gly Gly Pro Xaa Arg  
 110 115 120

<210> 3000  
 <211> 300  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 128..298

<400> 3000  
 cctgattttt agaatgggtac atgaacacta gctaaaactt aaaatcacca gctgcatgag 60  
 cccctgacaa gagagtcagc tttgaagctt tgaagccagg cattgatttc tcctcttcta 120  
 gctatga atg gcc aat atg gca tct tct tct aat agc cat ttc atc tac 169  
 Met Ala Asn Met Ala Ser Ser Ser Asn Ser His Phe Ile Tyr  
 1 5 10  
 aat gaa aat ctg ttg tta cat gta gcc atc ttc atc att gat ctt agc 217  
 Asn Glu Asn Leu Leu Leu His Val Ala Ile Phe Ile Ile Asp Leu Ser  
 15 20 25 30  
 tta acc ttc agg aca act tgc tac agc ttc tac atc atc att cgc tgc 265  
 Leu Thr Phe Arg Thr Thr Cys Tyr Ser Phe Tyr Ile Ile Ile Arg Cys  
 35 40 45  
 ttc acc ttg cac ttt tat att ata gag atg gct tc 300  
 Phe Thr Leu His Phe Tyr Ile Ile Glu Met Ala  
 50 55

<210> 3001  
 <211> 355  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 191..355

<400> 3001  
 aagtcagtcg aaagcgaacc agaagcaccg ggcacagcag ctctctctggc tgtgtagaca 60  
 gacctggcaa tgtggccgtg cagcccagac gatcagagag aagccaggcg ttgaccaagc 120  
 cccaaggtgc ctgaggccat ggtgcaactc tgctggtgac tggggcacct tggagcagag 180  
 cttcaccggtg atg gga aat cct cac tcc tgg gtg gca ctc cct cct gga 229  
 Met Gly Asn Pro His Ser Trp Val Ala Leu Pro Pro Gly  
 1 5 10  
 cag gcc cgg tgg cag agt gtc cgt gct gct ggg tgc tgt ccc cag ccc 277  
 Gln Ala Arg Trp Gln Ser Val Arg Ala Ala Gly Cys Cys Pro Gln Pro  
 15 20 25  
 tcc tgg tcc atc ttc tta aga tgc gtc cac tgc ttt ata ttt aaa att 325

Ser Trp Ser Ile Phe Leu Arg Cys Val His Cys Phe Ile Phe Lys Ile  
 30 35 40 45  
 ctc ttt ttc aca ggc aag gaa agg aaa ctc  
 Leu Phe Phe Thr Gly Lys Glu Arg Lys Leu  
 50 55

355

<210> 3002  
 <211> 473  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 98..472

<400> 3002  
 cagcatcctt ttcaaggata dctgaacaga accttctaag tctcagacac gtaaacccaa 60  
 gtgtggcaaa ggaactcatt gctctcgaaa tgcatat atg tkg gtt tat aga ctg 115  
 Met Xaa Val Tyr Arg Leu  
 1 5  
 caa act caa gar aag ccc aac act act gtk caa gtt cca gcc ttt ctt 163  
 Gln Thr Gln Glu Lys Pro Asn Thr Thr Val Gln Val Pro Ala Phe Leu  
 10 15 20  
 caa gag ctg gta gat cgg gat aat tcc aaa ttt gag gag tgg tgt att 211  
 Gln Glu Leu Val Asp Arg Asp Asn Ser Lys Phe Glu Glu Trp Cys Ile  
 25 30 35  
 gaa atg gct gag atg cgt aas aaa gtg tgg ata aag gaa aag caa aac 259  
 Glu Met Ala Glu Met Arg Xaa Lys Val Trp Ile Lys Glu Lys Gln Asn  
 40 45 50  
 acg aag agg tta agg agc tgt acc aaa ggt tac ctg ctg gag ctg agc 307  
 Thr Lys Arg Leu Arg Ser Cys Thr Lys Gly Tyr Leu Leu Glu Leu Ser  
 55 60 65 70  
 cct atg agt ttg tct ctc tgg aat ggc tgc aaa agt ggt tgg atg aat 355  
 Pro Met Ser Leu Ser Leu Trp Asn Gly Cys Lys Ser Gly Trp Met Asn  
 75 80 85  
 cag caa nta cca aac cta ttg ata atc acg ctt gcc tgt gtt ccc atg 403  
 Gln Gln Xaa Pro Asn Leu Leu Ile Ile Thr Leu Ala Cys Val Pro Met  
 90 95 100  
 aca agc ttc acc cgg aat aaa ata tca att atg aag agg ata tct gaa 451  
 Thr Ser Phe Thr Arg Asn Lys Ile Ser Ile Met Lys Arg Ile Ser Glu  
 105 110 115  
 tat gca gck gac att ttc tat a  
 Tyr Ala Ala Asp Ile Phe Tyr 473  
 120 125

<210> 3003  
 <211> 250  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 4..249

<400> 3003  
agg atg ctg gag agc cca gag agg gaa gag aag aaa ccc agc gtt ggt 48  
Met Leu Glu Ser Pro Glu Arg Glu Glu Lys Lys Pro Ser Val Gly  
1 5 10 15  
gcg gtg ccc acc gag gac tcg act tca ttc cac ctt cac gct ctg aga 96  
Ala Val Pro Thr Glu Asp Ser Thr Ser Phe His Leu His Ala Leu Arg  
20 25 30  
gag gcc aag ata cct aga gag agt tcg cgg ggc cgg aag stc cct gct 144  
Glu Ala Lys Ile Pro Arg Glu Ser Ser Arg Gly Arg Lys Xaa Pro Ala  
35 40 45  
gtc tcc tgc aag tgc gtg ggg gtg ggg tct gat ttc cac ccg tgt tgg 192  
Val Ser Cys Lys Cys Val Gly Val Gly Ser Asp Phe His Pro Cys Trp  
50 55 60  
acg tca gcg gcc tcc gac gct ttt tgg aag cag gtg aag ggt caa ggc 240  
Thr Ser Ala Ala Ser Asp Ala Phe Trp Lys Gln Val Lys Gly Gln Gly  
65 70 75  
cac ccc cgg a 250  
His Pro Arg  
80

<210> 3004  
<211> 428  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 16..426

<400> 3004  
cagaaacaaa tccta atg gaa aat gca gaa ctt aag aag gtt ctt caa caa 51  
Met Glu Asn Ala Glu Leu Lys Lys Val Leu Gln Gln  
1 5 10  
atg aaa aag gaa atg att tct ctt ctt tct ccc caa aag aag aaa cct 99  
Met Lys Lys Glu Met Ile Ser Leu Leu Ser Pro Gln Lys Lys Lys Pro  
15 20 25  
aga gaa aga gta gat gat agt aca gga act gtt att tcc gat gtt gaa 147  
Arg Glu Arg Val Asp Asp Ser Thr Gly Thr Val Ile Ser Asp Val Glu  
30 35 40  
gaa gat gcc ggg gaa cta agc aga gag agt atg tgg gac ctt tcc tgt 195  
Glu Asp Ala Gly Glu Leu Ser Arg Glu Ser Met Trp Asp Leu Ser Cys  
45 50 55 60  
gaa act gtg aga gag cag ctt aca aac agc atc aga aaa cag tgg aga 243  
Glu Thr Val Arg Glu Gln Leu Thr Asn Ser Ile Arg Lys Gln Trp Arg  
65 70 75  
att ttg aaa agt cat gta gaa aag ctt gat aac caa gtt tca aag gta 291  
Ile Leu Lys Ser His Val Glu Lys Leu Asp Asn Gln Val Ser Lys Val  
80 85 90  
cac ctg gaa ggt ttt aat gat gaa gat gta atc tca cga caa gac cat 339  
His Leu Glu Gly Phe Asn Asp Glu Asp Val Ile Ser Arg Gln Asp His  
95 100 105

gaa caa gaa act gaa aaa ctc gag tta gaa att cag cag tgt aaa gaa 387  
 Glu Gln Glu Thr Glu Lys Leu Glu Leu Glu Ile Gln Gln Cys Lys Glu  
 110 115 120  
 atg att aaa act cag caa cag ctt tta cag cag cag ctc gg 428  
 Met Ile Lys Thr Gln Gln Gln Leu Leu Gln Gln Gln Leu  
 125 130 135

<210> 3005  
 <211> 307  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 91..306

<400> 3005  
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 cgagggcctc ggcgtcagtc caggccctga atg gct ggt ctc cag cgg ttg gcg 114  
 Met Ala Gly Leu Gln Arg Leu Ala  
 1 5  
 tca cat ctg cct gtg ggc gtt atg ctc cca cat aat aca acg gaa gct 162  
 Ser His Leu Pro Val Gly Val Met Leu Pro His Asn Thr Thr Glu Ala  
 10 15 20  
 cca ggg ccc cac tca gcc aag caa gac tct tac gaa caa ggt gac tct 210  
 Pro Gly Pro His Ser Ala Lys Gln Asp Ser Tyr Glu Gln Gly Asp Ser  
 25 30 35 40  
 tcc cag cag tcc ttg aag ggg cac ctg agg aac aat ttc cag aag cag 258  
 Ser Gln Gln Ser Leu Lys Gly His Leu Arg Asn Asn Phe Gln Lys Gln  
 45 50 55  
 ctt ttg agc aac aaa gag ttg att ctg gat aaa gtc tat act cac ccc t 307  
 Leu Leu Ser Asn Lys Glu Leu Ile Leu Asp Lys Val Tyr Thr His Pro  
 60 65 70

<210> 3006  
 <211> 307  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 85..306

<400> 3006  
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 taagtcttgt tattgtctcac tggt atg gtt tat gtt gct ttt atg agc tgt 111  
 Met Val Tyr Val Ala Phe Met Ser Cys  
 1 5  
 aac aca aaa gtt tgc agc ttc att ctt gaa gcc agt gag acc acg aac 159  
 Asn Thr Lys Val Cys Ser Phe Ile Leu Glu Ala Ser Glu Thr Thr Asn  
 10 15 20 25  
 cca ccg tca gga gcg acc aac ttc agt tgt gca gct tta aga gct gtg 207

Pro Pro Ser Gly Ala Thr Asn Phe Ser Cys Ala Ala Leu Arg Ala Val  
                   30                  35                  40  
 aca ctc acc gtg aag gtt tgc agc ttc att tct gaa tca gcg aga cca 255  
 Thr Leu Thr Val Lys Val Cys Ser Phe Ile Ser Glu Ser Ala Arg Pro  
                   45                  50                  55  
 ggg acc cac cag aag aaa aaa act cca aat gca tct gaa cat cag aag 303  
 Gly Thr His Gln Lys Lys Lys Thr Pro Asn Ala Ser Glu His Gln Lys  
                   60                  65                  70  
 gaa c 307  
 Glu

<210> 3007  
 <211> 235  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 33..233

<400> 3007  
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   Met Ala Gln Ala Lys Ile Asn  
   1                  5  
 gct aaa gcc aac gag ggg cgc ttc tgc cgc tcc tcc tcc atg gct gac 101  
 Ala Lys Ala Asn Glu Gly Arg Phe Cys Arg Ser Ser Ser Met Ala Asp  
                   10                  15                  20  
 cgc tcc agc cgc ctg ctg gag agc ctg gac cag ctg gag ctc agg gtt 149  
 Arg Ser Ser Arg Leu Leu Glu Ser Leu Asp Gln Leu Glu Leu Arg Val  
                   25                  30                  35  
 gaa gct ttg aga gaa gca gca act gct gtt gag caa gag aaa gaa atc 197  
 Glu Ala Leu Arg Glu Ala Ala Thr Ala Val Glu Gln Glu Lys Glu Ile  
                   40                  45                  50                  55  
 ctt ctg gaa atg atc cac agt atc caa aat agc cag ag 235  
 Leu Leu Glu Met Ile His Ser Ile Gln Asn Ser Gln  
                   60                  65

<210> 3008  
 <211> 300  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 77..298

<400> 3008  
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 gccgacaaga ggcacc atg aaa ttg gaa ttc acg gag aaa aac bac rat agc 112  
                   Met Lys Leu Glu Phe Thr Glu Lys Asn Xaa Xaa Ser  
                   1                  5                  10  
 ttc gtg ctg car aac ctg aac aga cag agg aaa cgc aaa gag tac tgg 160

Phe	Val	Leu	Gln	Asn	Leu	Asn	Arg	Gln	Arg	Lys	Arg	Lys	Glu	Tyr	Trp	
	15					20					25					
gac	atg	gcc	ctg	agt	gtg	gac	aac	cac	gtc	ttc	ttt	gca	cat	cgc	aat	208
Asp	Met	Ala	Leu	Ser	Val	Asp	Asn	His	Val	Phe	Phe	Ala	His	Arg	Asn	
	30					35				40						
gtg	ctg	gct	gct	gtc	tcc	cca	ctg	gtg	agg	agc	ctc	atc	tcc	agc	aat	256
Val	Leu	Ala	Ala	Val	Ser	Pro	Leu	Val	Arg	Ser	Leu	Ile	Ser	Ser	Asn	
	45				50				55						60	
gac	atg	aag	acc	gct	gat	gag	ctt	ttc	atc	acc	att	gac	acc	aa		300
Asp	Met	Lys	Thr	Ala	Asp	Glu	Leu	Phe	Ile	Thr	Ile	Asp	Thr			
				65					70							

<210> 3009  
 <211> 476  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 48..476

<400> 3009

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					Met	Val	Leu									
					1											
ttt	ttg	ggt	gct	ata	ggc	cgc	ata	gat	ttc	ctg	cag	gga	aat	cag	tca	104
Phe	Leu	Gly	Ala	Ile	Gly	Arg	Ile	Asp	Phe	Leu	Gln	Gly	Asn	Gln	Ser	
	5				10					15						
gct	tgg	ttt	aca	gtc	gtg	gct	tcc	aac	atc	ctc	cct	gtg	cat	atc	acc	152
Ala	Trp	Phe	Thr	Val	Val	Ala	Ser	Asn	Ile	Leu	Pro	Val	His	Ile	Thr	
	20				25					30					35	
tcc	ttg	gac	agg	gca	gac	gct	ctg	tat	cag	aag	cat	gca	ggt	cat	acg	200
Ser	Leu	Asp	Arg	Ala	Asp	Ala	Leu	Tyr	Gln	Lys	His	Ala	Gly	His	Thr	
			40						45					50		
tta	ctc	cag	att	cca	atg	ggt	gga	aaa	gaa	cga	atg	gca	gga	ttt	cct	248
Leu	Leu	Gln	Ile	Pro	Met	Gly	Gly	Lys	Glu	Arg	Met	Ala	Gly	Phe	Pro	
			55					60					65			
cct	ctt	gtt	gct	gaa	gac	att	atg	tta	aaa	gaa	gga	ctg	ggg	gca	tct	296
Pro	Leu	Val	Ala	Glu	Asp	Ile	Met	Leu	Lys	Glu	Gly	Leu	Gly	Ala	Ser	
	70						75					80				
gaa	gca	gtg	gcc	gac	atc	aag	ttt	tcc	tct	gca	ggt	tgg	gtt	tca	gta	344
Glu	Ala	Val	Ala	Asp	Ile	Lys	Phe	Ser	Ser	Ala	Gly	Trp	Val	Ser	Val	
	85					90					95					
aca	cct	aat	ttt	vag	gac	aga	ctg	cat	ctc	cga	ggc	tat	aca	cct	gaa	392
Thr	Pro	Asn	Phe	Xaa	Asp	Arg	Leu	His	Leu	Arg	Gly	Tyr	Thr	Pro	Glu	
	100				105					110					115	
gga	aca	gtt	ttg	acc	gtc	cgg	ccc	cct	ctc	ttg	cca	tat	att	gtw	aca	440
Gly	Thr	Val	Leu	Thr	Val	Arg	Pro	Pro	Leu	Leu	Pro	Tyr	Ile	Val	Thr	
				120					125					130		
tca	aag	gac	agc	gca	tca	aga	aaa	gtg	tgg	cct	ata					476
Ser	Lys	Asp	Ser	Ala	Ser	Arg	Lys	Val	Trp	Pro	Ile					
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 Ser Lys Cys Cys Lys Gly Gly Pro Asp Glu Asp Ala Val Glu Arg Gln  
 5 10 15  
 agg cgg cag aag ttg ctt ctt gca caa ctg cat cac aga aaa agg gtg 152  
 Arg Arg Gln Lys Leu Leu Leu Ala Gln Leu His His Arg Lys Arg Val  
 20 25 30  
 aar gca gct ggg cag atc cag gcc tgg tgg cgt ggg gtc ctg gtg cgc 200  
 Lys Ala Ala Gly Gln Ile Gln Ala Trp Trp Arg Gly Val Leu Val Arg  
 35 40 45 50  
 agg acc ctg ctg gtt gct gcc ctc agg gcc tgg atg att cag tgc tgg 248  
 Arg Thr Leu Leu Val Ala Ala Leu Arg Ala Trp Met Ile Gln Cys Trp  
 55 60 65  
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 Trp Arg Thr Leu Val Gln Arg Arg Ile Arg Gln Arg Arg  
 70 75

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 <222> 121..411

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 atg gcc aaa ggt gga gaa gcc ctg cca cag ggc agc cca gca cca gtc 168  
 Met Ala Lys Gly Gly Glu Ala Leu Pro Gln Gly Ser Pro Ala Pro Val  
 1 5 10 15  
 cag gat ccc cac ctc atc aag gtg aca gtg aag acg ccc aaa gac aag 216  
 Gln Asp Pro His Leu Ile Lys Val Thr Val Lys Thr Pro Lys Asp Lys  
 20 25 30  
 gag gat ttc tca gtt aca gac aca tgc act atc cag cag ctg aag gaa 264  
 Glu Asp Phe Ser Val Thr Asp Thr Cys Thr Ile Gln Gln Leu Lys Glu  
 35 40 45  
 gag ata tct cag cgc ttt aag gcc cac ccc gat cag ctt gtt cta aat 312  
 Glu Ile Ser Gln Arg Phe Lys Ala His Pro Asp Gln Leu Val Leu Asn



50	55	60	
ctt tgc tgg caa aat cct can bga tcc gmc tca ctg gca cag tgt gga			360
Leu Cys Trp Gln Asn Pro Xaa Xaa Ser Xaa Ser Leu Ala Gln Cys Gly			
65	70	75	80
gtg cga gat ggc ctc act gtc cam ctg gtc atc aag agg cag cac cgt			408
Val Arg Asp Gly Leu Thr Val Xaa Leu Val Ile Lys Arg Gln His Arg			
	85	90	95
gcc at			413
Ala			

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 <222> 85..249

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Met Phe Leu Pro Gln Leu Ile His Xaa	
1 5	
cct tgt gat gtt rwg cct tgt gac ctc ccc tac ctc gtg act atg cac	159
Pro Cys Asp Val Xaa Pro Cys Asp Leu Pro Tyr Leu Val Thr Met His	
10 15 20 25	
ctt gtg aca ttc ttc ccc tgc ccg ava aaa ctg ccc cta act gka act	207
Leu Val Thr Phe Phe Pro Cys Pro Xaa Lys Leu Pro Leu Thr Xaa Thr	
30 35 40	
ttc cac tac cta ctc caa gcc kat aaa act aac tcc act ccc a	250
Phe His Tyr Leu Leu Gln Ala Xaa Lys Thr Asn Ser Thr Pro	
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gtttttttat tatttcagta gattttatgg ttatggatta aaattttaat cacatttttt	120
ttcagttcag aattatactt tagc atg ttt tgc aca aca gaa caa cag gga	171
Met Phe Cys Thr Thr Glu Gln Gln Gly	
1 5	
gcc cta tct tca gaa ctg cca agc aca tca cct tca tca gtt gct gcc	219
Ala Leu Ser Ser Glu Leu Pro Ser Thr Ser Pro Ser Ser Val Ala Ala	
10 15 20 25	

att tca tcg aga tca gta ata cac aaa cca ttt act cag tcc cgg ata	267
Ile Ser Ser Arg Ser Val Ile His Lys Pro Phe Thr Gln Ser Arg Ile	
30 35 40	
cct cca gat ttg ccc atg cat ccg gca cca agg cac ata acg gag gaa	315
Pro Pro Asp Leu Pro Met His Pro Ala Pro Arg His Ile Thr Glu Glu	
45 50 55	
gaa ctt tct gtg ctg gaa agt tgt tta cat cgc tgg aag gac a	358
Glu Leu Ser Val Leu Glu Ser Cys Leu His Arg Trp Lys Asp	
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<220>  
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 <222> 175..378

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ttccctggga cccattgttg tactggatta acaagcgacg gcgctacggc atga atg	177
Met	
1	
cag cca tca aca cgg gcc ctg ccc ctg ctg tca cca aga ctg aga ctg	225
Gln Pro Ser Thr Arg Ala Leu Pro Leu Leu Ser Pro Arg Leu Arg Leu	
5 10 15	
agg tcc aga atc cag atg ttc tgt ggg att tgg aca tcc ccg aag cca	273
Arg Ser Arg Ile Gln Met Phe Cys Gly Ile Trp Thr Ser Pro Lys Pro	
20 25 30	
gga gcc atg ctg acc aag aca gca acc cbn mgg cgg aag ccc tgc tcc	321
Gly Ala Met Leu Thr Lys Thr Ala Thr Xaa Arg Arg Lys Pro Cys Ser	
35 40 45	
cct gca acc tgc act gma gct ggc tcc aca gca gcc cca ggc cag atc	369
Pro Ala Thr Cys Thr Xaa Ala Gly Ser Thr Ala Ala Pro Gly Gln Ile	
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ccc att ccc a	379
Pro Ile Pro	

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<220>  
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 <222> 38..196

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Met Cys His Xaa Ala Trp	

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Leu	Ile	Xaa	Val	Cys	Xaa	Val	Glu	Met	Xaa	Phe	His	Asn	Val	Gly	Pro	
			10					15					20			
gct	gga	ctc	gaa	ctc	ctg	acc	tca	ggt	gat	cca	css	acv	dtg	gcc	tcc	151
Ala	Gly	Leu	Glu	Leu	Leu	Thr	Ser	Gly	Asp	Pro	Xaa	Thr	Xaa	Ala	Ser	
		25					30					35				
caa	aat	gct	ggg	att	aca	ggt	gtg	agc	cac	cgc	acc	cag	cct	cta		196
Gln	Asn	Ala	Gly	Ile	Thr	Gly	Val	Ser	His	Arg	Thr	Gln	Pro	Leu		
	40					45					50					

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<220>  
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accaagtcag	acttctctcc	caagactcac	ctac atg gag atg agt tcc tac ctg				115								
			Met Glu Met Ser Ser Tyr Leu												
			1		5										
tgt tgg gcc aga ggc tss aag cgg gaa rca gcc ttc agc cga ggg art							163								
Cys Trp Ala Arg Gly Xaa Lys Arg Glu Xaa Ala Phe Ser Arg Gly Xaa															
	10		15		20										
gaa akg att ctg aac ccc aga gtg ccc cct ccc tgc cca gaa ccc agc							211								
Glu Xaa Ile Leu Asn Pro Arg Val Pro Pro Pro Cys Pro Glu Pro Ser															
	25		30		35										
agc gtk agt yac cag cag ttt cag cca ctt cat cgg atg caa cag aca							259								
Ser Val Ser Xaa Gln Gln Phe Gln Pro Leu His Arg Met Gln Gln Thr															
	40		45		50		55								
aac gtt gcc ctg ctt ggc cgg gag act gtg ggg aaa aag gag cct tgc							307								
Asn Val Ala Leu Leu Gly Arg Glu Thr Val Gly Lys Lys Glu Pro Cys															
	60		65		70										

<210> 3017  
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 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 171..368

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cagcctcccg	gcgcgatgaa	gacactgagg	ctcagagagg	ttaagtgact	cagccaaggt		120								
caaacagcta	gtaagtgggtg	gagccaggac	tcaaagccag	tctaggagcc	atg tcc		176								
					Met Ser										

act	ttg	ttc	ccc	tca	ctc	ttc	cct	cgt	gtg	act	gag	act	ctg	tgg	ttt	224
Thr	Leu	Phe	Pro	Ser	Leu	Phe	Pro	Arg	Val	Thr	Glu	Thr	Leu	Trp	Phe	
	5						10					15				
aat	ctg	gat	cga	ccc	tgt	gtg	gaa	gag	aca	gag	ctg	cag	cag	cag	gaa	272
Asn	Leu	Asp	Arg	Pro	Cys	Val	Glu	Glu	Thr	Glu	Leu	Gln	Gln	Gln	Glu	
	20					25				30						
cag	cag	cat	cag	gcc	tgg	ctc	caa	agc	att	gcg	grg	aaa	gac	aac	aac	320
Gln	Gln	His	Gln	Ala	Trp	Leu	Gln	Ser	Ile	Ala	Xaa	Lys	Asp	Asn	Asn	
	35				40				45					50		
ctg	gtt	cct	att	ggc	aag	cca	gcm	tca	gag	cac	tat	gat	gac	gag	gtc	369
Leu	Val	Pro	Ile	Gly	Lys	Pro	Ala	Ser	Glu	His	Tyr	Asp	Asp	Glu	Val	
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 <222> 77..259

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		Met	Leu	Val	Asp	Lys	Leu	Asn	Thr	Asn	Thr	Glu	Met			
		1				5					10					
gaa	gaa	gta	atg	aat	gat	tac	aat	atg	ctt	aaa	gct	caa	aat	gat	cga	160
Glu	Glu	Val	Met	Asn	Asp	Tyr	Asn	Met	Leu	Lys	Ala	Gln	Asn	Asp	Arg	
	15					20				25						
gaa	aca	caa	agt	ttg	gat	gtc	ata	ttt	act	gaa	aga	caa	gcg	aaa	gaa	208
Glu	Thr	Gln	Ser	Leu	Asp	Val	Ile	Phe	Thr	Glu	Arg	Gln	Ala	Lys	Glu	
	30				35				40							
aaa	caa	atc	aga	agt	gtc	gaa	gaa	gaa	att	gaa	cag	gaa	wwa	caa	gca	256
Lys	Gln	Ile	Arg	Ser	Val	Glu	Glu	Glu	Ile	Glu	Gln	Glu	Xaa	Gln	Ala	
	45				50				55					60		
aca	gg															261
Thr																

<210> 3019  
 <211> 335  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 49..333

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					Met	Gly	Gly									

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cga aga ggt ccc aac agg aca tct tac tgt cga aat ccg ctc tgt gag	1	105
Arg Arg Gly Pro Asn Arg Thr Ser Tyr Cys Arg Asn Pro Leu Cys Glu		
5 10 15		
ccg gga tcc tcg ggg ggc tct agt gga agc cac act tcc agt gca tcg		153
Pro Gly Ser Ser Gly Gly Ser Ser Gly Ser His Thr Ser Ser Ala Ser		
20 25 30 35		
gtg acc agt gtt cgt tcc cgc acc agg agc agt kct gga aca ggc ctc		201
Val Thr Ser Val Arg Ser Arg Thr Arg Ser Ser Xaa Gly Thr Gly Leu		
40 45 50		
tcc agc cct cct ctg gcc acc caa act gtt gtg cct cta cag cac tgc		249
Ser Ser Pro Pro Leu Ala Thr Gln Thr Val Val Pro Leu Gln His Cys		
55 60 65		
aag atc ccc gag ctg cca gtc cag gcc agc att ctg ttt gag thg cag		297
Lys Ile Pro Glu Leu Pro Val Gln Ala Ser Ile Leu Phe Glu Xaa Gln		
70 75 80		
ctc ttc ttc tgc cag ctc ata gca ctc ttc gtc cac ta		335
Leu Phe Phe Cys Gln Leu Ile Ala Leu Phe Val His		
85 90 95		

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1 5 10	
aac aag aaa gac gca ctt tgg ctt ata att ctt tca ata cag ata tat	100
Asn Lys Lys Asp Ala Leu Trp Leu Ile Ile Leu Ser Ile Gln Ile Tyr	
15 20 25	
ttt ctt tct ctt cct cct tcc tct tcc tta ctt ttt ata tat ata tat	148
Phe Leu Ser Leu Pro Pro Ser Ser Ser Leu Leu Phe Ile Tyr Ile Tyr	
30 35 40	
aaa gaa aat gat aca gca gag cta ggt gga aaa gcc tgg gtt tgg tgt	196
Lys Glu Asn Asp Thr Ala Glu Leu Gly Gly Lys Ala Trp Val Trp Cys	
45 50 55	
atg gtt ttt gag ata tta atg ccc aga caa aaa gct aat acc ag	240
Met Val Phe Glu Ile Leu Met Pro Arg Gln Lys Ala Asn Thr	
60 65 70	

<210> 3021  
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<220>  
 <221> CDS

<222> 127..309

<400> 3021

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aacgtt atg aga ggg cct tgt tgg gaa cac gtg ctc ctg gga atc agc      168
      Met Arg Gly Pro Cys Trp Glu His Val Leu Leu Gly Ile Ser
      1          5          10
cct tcc ctc tgt cct gtt ccc act cct ccc cga cga tgc tcc tgc tca      216
Pro Ser Leu Cys Pro Val Pro Thr Pro Pro Arg Arg Cys Ser Cys Ser
15          20          25          30
gaa ccc act cct cac ctc agt gaa gca acg cag cgg gca ccc tgt gga      264
Glu Pro Thr Pro His Leu Ser Glu Ala Thr Gln Arg Ala Pro Cys Gly
      35          40          45
caa agc tgg ata ttg gct ctg aat aaa agc gaa tca tgg gga aaa t      310
Gln Ser Trp Ile Leu Ala Leu Asn Lys Ser Glu Ser Trp Gly Lys
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<213> Homo sapiens

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<222> 31..219

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      1          5
cag ctc cgg cgg cga ttc ctc ctc ctg ccg gac gcc gag gcc cag ctg      102
Gln Leu Arg Arg Arg Phe Leu Leu Leu Pro Asp Ala Glu Ala Gln Leu
10          15          20
gac cgc gag ggt gac gcc ggg ccg aaa acc tcc aca gct gtt gag aaa      150
Asp Arg Glu Gly Asp Ala Gly Pro Lys Thr Ser Thr Ala Val Glu Lys
25          30          35          40
aag gag aaa cct ctt cca aga ctt aat atc cat tct gga ttc tgg att      198
Lys Glu Lys Pro Leu Pro Arg Leu Asn Ile His Ser Gly Phe Trp Ile
      45          50          55
ttg gca tcc att gtt gtg acc a      220
Leu Ala Ser Ile Val Val Thr
      60
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<212> DNA

<213> Homo sapiens

<220>

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<222> 188..352

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attaaggatc ttcttccata tcactctggat taggagccat aatgaagtgc tttgggtata 180  
caagggtt atg tgt gta tgc atg tat ttc cca gcg agc atc atc act ttc 229  
Met Cys Val Cys Met Tyr Phe Pro Ala Ser Ile Ile Thr Phe  
1 5 10  
atg tgt aat gta acg ttc tcc aat gcg agt ttc aaa ttc tct aag gtc 277  
Met Cys Asn Val Thr Phe Ser Asn Ala Ser Phe Lys Phe Ser Lys Val  
15 20 25 30  
aag cca agt ctg ata gtc cta gga gaa aat gaa att gta atg atg aaa 325  
Lys Pro Ser Leu Ile Val Leu Gly Glu Asn Glu Ile Val Met Met Lys  
35 40 45  
caa aag aaa caa aat act gtc aac cca 352  
Gln Lys Lys Gln Asn Thr Val Asn Pro  
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<210> 3024  
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<212> DNA  
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Met Arg Ala Ser Gln Pro Gly Gln Gly Gln Gly Thr Ser Arg Pro Ala  
1 5 10 15  
gcc tcg acg aag aac cgg aag gag gaa aag gaa cgd gag gga dga aga 97  
Ala Ser Thr Lys Asn Arg Lys Glu Glu Lys Glu Arg Glu Gly Xaa Arg  
20 25 30  
tct ccc gcm wkg act tca kaa cca agt tct ggg tcc ctg cct ctg gag 145  
Ser Pro Ala Xaa Thr Ser Xaa Pro Ser Ser Gly Ser Leu Pro Leu Glu  
35 40 45  
tgc ctg atg aga caa aac ggc tcc tcg tcc tgc atc ccc gca c 188  
Cys Leu Met Arg Gln Asn Gly Ser Ser Ser Cys Ile Pro Ala  
50 55 60

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<220>  
<221> CDS  
<222> 159..311

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aatcttggtta ctgctcactc tttgggtcca cactgctttt atgagctgta acactcacccg 120  
cgaaggctctg cagcttcact cctgaagcca gtgagccc atg akn cca ccg gga gga 176  
Met Xaa Pro Pro Gly Gly

1 5  
acg aac aac tcc aga tgc gcc acc tta aga gct gta aca ctc acc gcg 224  
Thr Asn Asn Ser Arg Cys Ala Thr Leu Arg Ala Val Thr Leu Thr Ala  
10 15 20

aag gtc tgt agc ttc act cct gag cca gcg aga cca cga acc cac cag 272  
Lys Val Cys Ser Phe Thr Pro Glu Pro Ala Arg Pro Arg Thr His Gln  
25 30 35

aag gaa gaa act cck gac aca tcc gaa cat cag aag gaa gc 313  
Lys Glu Glu Thr Pro Asp Thr Ser Glu His Gln Lys Glu  
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<210> 3026

<211> 385

<212> DNA

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<221> CDS

<222> 36..383

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agg aaa tta atg acc caa gga ggc tat gat atg gtc caa aaa ctt ttc 101  
Arg Lys Leu Met Thr Gln Gly Gly Tyr Asp Met Val Gln Lys Leu Phe  
10 15 20

ctg gat ttt ttc cgt agg cgg ctg agc cag agg cca act gca gag gaa 149  
Leu Asp Phe Phe Arg Arg Arg Leu Ser Gln Arg Pro Thr Ala Glu Glu  
25 30 35

ctg gaa cag agg aac att ttg aaa cct cgg aat gaa caa gag gaa cag 197  
Leu Glu Gln Arg Asn Ile Leu Lys Pro Arg Asn Glu Gln Glu Glu Gln  
40 45 50

gag gag aag aga gag atc aag agg agg cta acc cga aag ctc agt caa 245  
Glu Glu Lys Arg Glu Ile Lys Arg Arg Leu Thr Arg Lys Leu Ser Gln  
55 60 65 70

agg ccc acg gtg gaa gag ctt cgg gaa aga aag atc ctc atc cgc ttc 293  
Arg Pro Thr Val Glu Glu Leu Arg Glu Arg Lys Ile Leu Ile Arg Phe  
75 80 85

agt gac tac gtg gag gtg gct gac gct cag gac tat gac cgc agg gca 341  
Ser Asp Tyr Val Glu Val Ala Asp Ala Gln Asp Tyr Asp Arg Arg Ala  
90 95 100

gat aag ccg tgg acc cgc ctc acc gct gca gac aaa gct gcc aa 385  
Asp Lys Pro Trp Thr Arg Leu Thr Ala Ala Asp Lys Ala Ala  
105 110 115

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<211> 239

<212> DNA



<213> Homo sapiens

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<221> CDS

<222> 23..238

<400> 3027

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1 5 10  
ggg acg ctt ggt ctg cga cca cca aga ccc cac agg atc gat gca ccc 100  
Gly Thr Leu Gly Leu Arg Pro Pro Arg Pro His Arg Ile Asp Ala Pro  
15 20 25  
acc cct gct gat gac cat gac cat cta aar ggg aaa cat cat ttg agg 148  
Thr Pro Ala Asp Asp His Asp His Leu Lys Gly Lys His His Leu Arg  
30 35 40  
ggc cct act cat gga tca gaa gcc cct ctt cac tgt ggg gtg tgc tgg 196  
Gly Pro Thr His Gly Ser Glu Ala Pro Leu His Cys Gly Val Cys Trp  
45 50 55  
gtt ggc ggg cag ttg ccg tgg aat cag ttt cct cag gac ccg c 239  
Val Gly Gly Gln Leu Pro Trp Asn Gln Phe Pro Gln Asp Pro  
60 65 70

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<211> 328

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 175..327

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agatgttgaa cttttctggt gggcagcacc gacaccagg ggtggacccc cgaggatgaa 120  
tgcctctagg cctccgaac atattcaaga atgaatggsm gacgctagag taaa atg 177  
Met  
1  
ggg gca gag agg ata tca ggg agc aag atg caa act gtg tgc atc cac 225  
Gly Ala Glu Arg Ile Ser Gly Ser Lys Met Gln Thr Val Cys Ile His  
5 10 15  
tct cgt aaa caa gta gct ggt cac aac cag aaa ggt tca tct ctc cta 273  
Ser Arg Lys Gln Val Ala Gly His Asn Gln Lys Gly Ser Ser Leu Leu  
20 25 30  
agc aaa aca gcg act ctt tcw agc agg gaa gtt tcc ctc ttt caa tcg 321  
Ser Lys Thr Ala Thr Leu Ser Ser Arg Glu Val Ser Leu Phe Gln Ser  
35 40 45  
tgg cct c 328  
Trp Pro  
50

<210> 3029

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 Met Gly Met His Leu Ile Met Ile Leu Leu Tyr Ile Phe Leu Met  
 1 5 10 15  
 gtt aat gat gtt gcg cat ctt ttc atg agc tca gtg gcc atc tgt ata 96  
 Val Asn Asp Val Ala His Leu Phe Met Ser Ser Val Ala Ile Cys Ile  
 20 25 30  
 tct tct ttg gag aaa tac cta ttc aga tcc ttt tcc tat ttg tca tct 144  
 Ser Ser Leu Glu Lys Tyr Leu Phe Arg Ser Phe Ser Tyr Leu Ser Ser  
 35 40 45  
 ggg ttg tct ttt tat tgt tca agt tta aga gtt ctt tta tta tta tgt 192  
 Gly Leu Ser Phe Tyr Cys Ser Ser Leu Arg Val Leu Leu Leu Leu Cys  
 50 55 60  
 ctt tgt caa ata tac att tta cgt agg gag gcc t 226  
 Leu Cys Gln Ile Tyr Ile Leu Arg Arg Glu Ala  
 65 70

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 <213> Homo sapiens

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 <222> 91..354

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 aatgctgtct tcaagtccgt tgagaagaaa atg aca gac atg cta aaa gag gaa 114  
 Met Thr Asp Met Leu Lys Glu Glu  
 1 5  
 gaa gag agg ctc cag ctg gcg cac agc aac atg acc aag ggc cag gag 162  
 Glu Glu Arg Leu Gln Leu Ala His Ser Asn Met Thr Lys Gly Gln Glu  
 10 15 20  
 ctg ctg ctg acc atc cag atg ggc atc gac aac ctc tat gtc cgg ctg 210  
 Leu Leu Leu Thr Ile Gln Met Gly Ile Asp Asn Leu Tyr Val Arg Leu  
 25 30 35 40  
 atg ggc att acc ttg cct gcg acc cag aga gaa gtg gtg ctc tcc aac 258  
 Met Gly Ile Thr Leu Pro Ala Thr Gln Arg Glu Val Val Leu Ser Asn  
 45 50 55  
 acc ctc gmy ttg aac agc aag ctg gcg tac tgc gag ggg aag ctc acg 306  
 Thr Leu Xaa Leu Asn Ser Lys Leu Ala Tyr Cys Glu Gly Lys Leu Thr  
 60 65 70  
 tac ctg gct gac aga gtg cag atg gtg tcc agg acc gag gag ggc gac t 355

004220" 5557560

Tyr Leu Ala Asp Arg Val Gln Met Val Ser Arg Thr Glu Glu Gly Asp  
75 80 85

<210> 3031  
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<220>  
<221> CDS  
<222> 116..280

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tttcccgtca gctgggacac ttgcagctgc cccaggacgg gcagcctcga tcctg atg 118  
Met  
1  
agc agc acc agc agt aag agg gct ccg acc acg gca acc cag agg ctg 166  
Ser Ser Thr Ser Ser Lys Arg Ala Pro Thr Thr Ala Thr Gln Arg Leu  
5 10 15  
aag cag gac tac ctt cgc att aag aaa gac ccg gtg cct tac atc tgt 214  
Lys Gln Asp Tyr Leu Arg Ile Lys Lys Asp Pro Val Pro Tyr Ile Cys  
20 25 30  
gcc gag ccc ctc cct tcg aat att ctc gag tgg cac tat gtc gtb cga 262  
Ala Glu Pro Leu Pro Ser Asn Ile Leu Glu Trp His Tyr Val Val Arg  
35 40 45  
ggc nbd gag atg aca ccg c 281  
Gly Xaa Glu Met Thr Pro  
50 55

<210> 3032  
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<220>  
<221> CDS  
<222> 239..403

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ggacggtgaa ctttgacata ataaaatact tgtatgattt cttgtgaaaa caagcttcaa 120  
agccatatgg acactgtgac aatgactaag ccaagctgtg ttcacccagc tacttagctg 180  
gccaaggaga ggagttcttt ggctctattg gatttgtcca aacaggtgct ggcccagc 238  
atg gaa tct gat gaa aat att ctg att ggt ctg ggt gga tgt gag cag 286  
Met Glu Ser Asp Glu Asn Ile Leu Ile Gly Leu Gly Gly Cys Glu Gln  
1 5 10 15  
aag act att tac cag gga ccc tgg agt att tgg aag caa cgt gtt aat 334  
Lys Thr Ile Tyr Gln Gly Pro Trp Ser Ile Trp Lys Gln Arg Val Asn  
20 25 30  
tat aaa cag cag ggt ttg agc aca atc tgt tct act ctt aat gat gtt 382  
Tyr Lys Gln Gln Gly Leu Ser Thr Ile Cys Ser Thr Leu Asn Asp Val

004220" 666755

35	40	45	405
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Ile Leu Thr Leu Lys Leu Pro			
50	55		

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 <213> Homo sapiens

<220>  
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 <222> 107..286

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	Met Ala Ala
	1
ctc ctt cat ctt caa agc cag aaa cat tgg gcc aag ccc ttc tgt ctc	163
Leu Leu His Leu Gln Ser Gln Lys His Trp Ala Lys Pro Phe Cys Leu	
5 10 15	
tcc ctc ttc tas ktt aaa aga ccc ttg tgg ccc agc ctg gcc aac atg	211
Ser Leu Phe Xaa Xaa Lys Arg Pro Leu Trp Pro Ser Leu Ala Asn Met	
20 25 30 35	
gct cac aga agg gag gca ggc aca gat gga aaa acg ttt ttc ttt tcg	259
Ala His Arg Arg Glu Ala Gly Thr Asp Gly Lys Thr Phe Phe Phe Ser	
40 45 50	
tbc tcc tct acc agt acg ctc tcg ccc	286
Xaa Ser Ser Thr Ser Thr Leu Ser Pro	
55 60	

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	Met Thr Leu Ser
	1
ccc att ccc gta tta agg gac atc agc gag asa ggc agr gat ctt gar	103
Pro Ile Pro Val Leu Arg Asp Ile Ser Glu Xaa Gly Arg Asp Leu Glu	
5 10 15 20	
cag att wta wck cag tac att acg twc gtc aag cct gcc twt gag gaa	151
Gln Ile Xaa Xaa Gln Tyr Ile Thr Xaa Val Lys Pro Ala Xaa Glu Glu	
25 30 35	
ttc trc wtg cca aca aag aag tat gcw gat gtg atc atc ccw aga ggd	199

Phe Xaa Xaa Pro Thr Lys Lys Tyr Ala Asp Val Ile Ile Pro Arg Gly  
 40 45 50  
 gca gat aat ctg gtg rcc att ct 222  
 Ala Asp Asn Leu Val Xaa Ile  
 55

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 <212> DNA  
 <213> Homo sapiens

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 Met Val Ala Arg Arg Arg Lys Cys Ala Ala Arg Asp Pro  
 1 5 10  
 gag gac cgt atc ccc agc cca ctg ggc tac gca gct att cca atc aag 98  
 Glu Asp Arg Ile Pro Ser Pro Leu Gly Tyr Ala Ala Ile Pro Ile Lys  
 15 20 25  
 ttc tct gaa aag caa cag gct tct cac tac ctc tat gtg aga gca cac 146  
 Phe Ser Glu Lys Gln Gln Ala Ser His Tyr Leu Tyr Val Arg Ala His  
 30 35 40 45  
 ggc gtt cga caa ggc acc aag tcc acc tgg cct cag aag agg act ctt 194  
 Gly Val Arg Gln Gly Thr Lys Ser Thr Trp Pro Gln Lys Arg Thr Leu  
 50 55 60  
 ttt gtc ctc aat gtg ccc cca cgc c 219  
 Phe Val Leu Asn Val Pro Pro Arg  
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<220>  
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 ctcctgggtct caagcgatcc taccgcttca gcctcccaag atgctggcat tacagccgtg 180  
 ttttaagatag aagtgcta atg aat gga aga aaa cat ttt gtt gaa aag aga 231  
 Met Asn Gly Arg Lys His Phe Val Glu Lys Arg  
 1 5 10  
 tac agc gaa ttt cat gct ttg cac aaa aag ctt aag aaa tgt ata aaa 279  
 Tyr Ser Glu Phe His Ala Leu His Lys Lys Leu Lys Lys Cys Ile Lys  
 15 20 25  
 act cca gaa atc cct tct aaa cat gtt agg aac tgg gtc ccc aaa gtc 327

Thr	Pro	Glu	Ile	Pro	Ser	Lys	His	Val	Arg	Asn	Trp	Val	Pro	Lys	Val	
	30						35					40				
ttg	gaa	cag	cga	cga	caa	ggc	ttg	gaa	aca	tac	tta	cag	gct	gtc	att	375
Leu	Glu	Gln	Arg	Arg	Gln	Gly	Leu	Glu	Thr	Tyr	Leu	Gln	Ala	Val	Ile	
	45					50					55					
tta	gaa	aat	gaa	gaa	ctt	ccc	aaa	ctg	ttt	ctt	gat	ttc	cta	aat	gtg	423
Leu	Glu	Asn	Glu	Glu	Leu	Pro	Lys	Leu	Phe	Leu	Asp	Phe	Leu	Asn	Val	
60					65				70					75		
cga	cac	t														430
Arg	His															

&lt;210&gt; 3037

&lt;211&gt; 274

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 1..273

&lt;400&gt; 3037

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Met	Glu	Asp	Lys	His	Ser	Ser	Asp	Ala	Ser	Ser	Leu	Leu	Pro	Gln	Asn	
1			5					10					15			
att	ttg	tct	caa	aca	agc	aga	cac	aat	gac	aga	gac	tac	aga	ctg	cca	96
Ile	Leu	Ser	Gln	Thr	Ser	Arg	His	Asn	Asp	Arg	Asp	Tyr	Arg	Leu	Pro	
			20					25				30				
aga	gca	gag	act	cac	agt	agt	tct	acg	cya	gta	cag	cac	ccc	atc	aaa	144
Arg	Ala	Glu	Thr	His	Ser	Ser	Ser	Thr	Xaa	Val	Gln	His	Pro	Ile	Lys	
			35				40				45					
cca	gtg	ggt	cat	cca	act	gct	acc	cca	agc	act	gtt	cct	tct	agt	mca	192
Pro	Val	Val	His	Pro	Thr	Ala	Thr	Pro	Ser	Thr	Val	Pro	Ser	Ser	Xaa	
			50			55					60					
ttt	acg	cta	cag	tct	gat	cac	cag	cca	aag	aaa	tca	ttt	gat	gct	aat	240
Phe	Thr	Leu	Gln	Ser	Asp	His	Gln	Pro	Lys	Lys	Ser	Phe	Asp	Ala	Asn	
65				70					75					80		
gga	gca	tct	act	tta	tca	aaa	ctg	cct	act	ccc	a					274
Gly	Ala	Ser	Thr	Leu	Ser	Lys	Leu	Pro	Thr	Pro						
				85					90							

&lt;210&gt; 3038

&lt;211&gt; 291

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 102..290

&lt;400&gt; 3038

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aaatcttgct	gctgctcaact	ctttgggttt	acactacctt	t atg agc	tgt aac act	116



gca gaa ggt cgc ctc tac ctt gcc caa aac aca aag gtg ctg cag atg 159  
 Ala Glu Gly Arg Leu Tyr Leu Ala Gln Asn Thr Lys Val Leu Gln Met  
           15                          20                          25  
 ctg gag gga agg ctg aag gag gag gac aag gat atc atc abc agg gag 207  
 Leu Glu Gly Arg Leu Lys Glu Glu Asp Lys Asp Ile Ile Xaa Arg Glu  
           30                          35                          40  
 aat gtt ctt ggg gcc ctg cag aag ttc agt ctc agg cgc ccg ctg cag 255  
 Asn Val Leu Gly Ala Leu Gln Lys Phe Ser Leu Arg Arg Pro Leu Gln  
           45                          50                          55  
 aca gcg atg att caa gac ggc ctc atc ttc tgg ctg gtt gat gtt ctg 303  
 Thr Ala Met Ile Gln Asp Gly Leu Ile Phe Trp Leu Val Asp Val Leu  
           60                          65                          70                          75  
 aag gac cct gac c 316  
 Lys Asp Pro Asp

<210> 3041  
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 <212> DNA  
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 <222> 205..363

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 gcctctctgc cagacagtca gcctccttca tcctgggtgaa gagaaaacca cccattgaca 180  
 agacagawtg ggacagcttc ttg atg agd mgt ggc cac ttg gcc aaa tca 231  
                                   Met Xaa Xaa Gly His Leu Ala Lys Ser  
                                   1                                  5  
 cgg gac ttc att tgt gta aac atc ctg gaa agg ggt ctg cac ccc ttc 279  
 Arg Asp Phe Ile Cys Val Asn Ile Leu Glu Arg Gly Leu His Pro Phe  
           10                          15                          20                          25  
 gtg agg act gaa gcc tgg aaa ttc ctc acg ggc tac ttc tca tgg cag 327  
 Val Arg Thr Glu Ala Trp Lys Phe Leu Thr Gly Tyr Phe Ser Trp Gln  
                           30                          35                          40  
 agt tcc cag gat gag cgg ctc acg gtg gac agc atg a 364  
 Ser Ser Gln Asp Glu Arg Leu Thr Val Asp Ser Met  
           45                          50

<210> 3042  
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 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 1..246

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 atg tac gca ggt gtg ggg ttt ggg gga ctt tgc ggg aga ggc tcc aga 48



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1				5					10					15			
gga	gac	act	gcc	agg	tct	ctg	ctg	gag	gga	gat	gac	cac	ttt	agc	ccg		96
Gly	Asp	Thr	Ala	Arg	Ser	Leu	Leu	Glu	Gly	Asp	Asp	His	Phe	Ser	Pro		
			20					25					30				
gaa	aat	aga	ctg	gac	atg	caa	gaa	aca	aca	cga	aaa	aca	tgg	cgt	acc		144
Glu	Asn	Arg	Leu	Asp	Met	Gln	Glu	Thr	Thr	Arg	Lys	Thr	Trp	Arg	Thr		
			35				40					45					
agc	tcg	gcc	atg	agc	gcc	ggg	ggg	tgc	agt	ggg	gag	aag	aac	tgc	ttr		192
Ser	Ser	Ala	Met	Ser	Ala	Gly	Gly	Cys	Ser	Gly	Glu	Lys	Asn	Cys	Leu		
			50			55				60							
agg	tgg	acc	cgc	tct	cca	ggg	agt	cct	cct	kcc	ggc	tgc	ggw	ggc	ctg		240
Arg	Trp	Thr	Arg	Ser	Pro	Gly	Ser	Pro	Pro	Xaa	Gly	Cys	Gly	Gly	Leu		
65					70				75					80			
agc	cgt	gt															248
Ser	Arg																

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 <212> DNA  
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 <222> 11..193

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	Met	Ser	Thr	Pro	Cys	His	Pro	Leu	Arg	Ser	Leu	Asn	Phe				
	1				5				10								
agg	aag	act	acc	aaa	gaa	tca	gcc	tta	cta	aac	aag	ctg	tcc	atc	ctt		97
Arg	Lys	Thr	Thr	Lys	Glu	Ser	Ala	Leu	Leu	Asn	Lys	Leu	Ser	Ile	Leu		
			15			20			25								
gcc	tcc	aaa	ctg	gcc	cca	gcc	atg	aag	act	cag	aag	cta	aga	tac	cga		145
Ala	Ser	Lys	Leu	Ala	Pro	Ala	Met	Lys	Thr	Gln	Lys	Leu	Arg	Tyr	Arg		
			30			35			40					45			
cgg	tgt	tcc	tct	gaa	ctt	ctt	cca	atg	gct	aaa	agc	tac	aag	cgc	ctt		193
Arg	Cys	Ser	Ser	Glu	Leu	Leu	Pro	Met	Ala	Lys	Ser	Tyr	Lys	Arg	Leu		
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 <222> 17..241

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	Met	Gln	Ile	Lys	Thr	Thr	Met	Arg	Tyr	His	Leu	Met					

	1		5		10	
cca gcc aga atg gtg att att aag aag tta aga aac act aga tgc ttg						100
Pro Ala Arg Met Val Ile Ile Lys Lys Leu Arg Asn Thr Arg Cys Leu						
15		20		25		
cga ggc tgt gga gaa ata gga aag ctt tta ccc tgt tgg cag gaa tgt						148
Arg Gly Cys Gly Glu Ile Gly Lys Leu Leu Pro Cys Trp Gln Glu Cys						
30		35		40		
aaa tta gtt caa tca ttg tgg aag gca gtg tgg cga ttc ctc aag gat						196
Lys Leu Val Gln Ser Leu Trp Lys Ala Val Trp Arg Phe Leu Lys Asp						
45		50		55		60
cta gaa cca gaa ata ctg ttt gac cca gaa atc cta tta cta ggt at						243
Leu Glu Pro Glu Ile Leu Phe Asp Pro Glu Ile Leu Leu Leu Gly						
65		70		75		

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<220>  
 <221> CDS  
 <222> 32..250

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Met Leu Phe Ala Leu Asn Ile	
1	5
atg aat tcc caa gaa gga ggc ccc tcc agc cag cgt cag gtg cag aat	100
Met Asn Ser Gln Glu Gly Gly Pro Ser Ser Gln Arg Gln Val Gln Asn	
10	15
ggc ccc tct cct gat gag atg gac atc cag aga aga caa gtg atg gag	148
Gly Pro Ser Pro Asp Glu Met Asp Ile Gln Arg Arg Gln Val Met Glu	
25	30
cag cac cag cag nag cgt cag gar tct cta gaa aga mga acc tcg gcc	196
Gln His Gln Gln Xaa Arg Gln Glu Ser Leu Glu Arg Arg Thr Ser Ala	
40	45
aya ggg csc rtc ctc yca sca gga cat cct tca tct gca gcm agc gcm	244
Xaa Gly Xaa Xaa Leu Xaa Xaa Gly His Pro Ser Ser Ala Ala Ser Ala	
60	65
ccc gac	70
Pro Asp	250

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 <211> 410  
 <212> DNA  
 <213> Homo sapiens

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<400> 3046

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                                Met Ala Gln Lys Arg Pro
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gcc tgc acc ctg aag cct gag tgt gtc cag cag ctg ctg gtt tgc tcc      104
Ala Cys Thr Leu Lys Pro Glu Cys Val Gln Gln Leu Leu Val Cys Ser
                                10           15           20
cag gag gcc aag aag tca gcc tac tgc ccc tac agt cac ttt cct gtg      152
Gln Glu Ala Lys Lys Ser Ala Tyr Cys Pro Tyr Ser His Phe Pro Val
                                25           30           35
ggg gct gcc ctg ctc acc cag gag ggg aga atc ttc aaa ggg tgc aac      200
Gly Ala Ala Leu Leu Thr Gln Glu Gly Arg Ile Phe Lys Gly Cys Asn
                                40           45           50
ata gaa aat gcc tgc tac ccg ctg ggc atc tgt gct gaa cgg acc gct      248
Ile Glu Asn Ala Cys Tyr Pro Leu Gly Ile Cys Ala Glu Arg Thr Ala
55                                60           65           70
atc cag aag gcc gtc tca aga aag ggt aca aag gat ttc agg gca att      296
Ile Gln Lys Ala Val Ser Arg Lys Gly Thr Lys Asp Phe Arg Ala Ile
                                75           80           85
gct atc gcc agt gac atg caa gat gat ttt atc tct cca tgt ggg gcc      344
Ala Ile Ala Ser Asp Met Gln Asp Asp Phe Ile Ser Pro Cys Gly Ala
                                90           95           100
tgc mag gca aag ctc atg cag aga gtt tgg cac caa mct ggc ccg tgt      392
Cys Xaa Ala Lys Leu Met Gln Arg Val Trp His Gln Xaa Gly Pro Cys
                                105           110           115
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Tyr Met Thr Lys Pro Asp
                                120

<210> 3047
<211> 328
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 40..327

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tagtggghat ahgataactt gaaaggatct tacagtcaa atg gga aaa acc aga      54
                                Met Gly Lys Thr Arg
                                1           5
gaa atc gat act agt act aga ggg caa caa atg ctg tta caa att ggg      102
Glu Ile Asp Thr Ser Thr Arg Gly Gln Gln Met Leu Leu Gln Ile Gly
                                10           15           20
gta cgt aga ggm agg tac ttg gta gag gac agg ggc atg ttt ccg ggg      150
Val Arg Arg Gly Arg Tyr Leu Val Glu Asp Arg Gly Met Phe Pro Gly
                                25           30           35
cat aga tca aag tat atv aat aag gaa ctg cca ggc cag tdg cgg tgg      198
His Arg Ser Lys Tyr Xaa Asn Lys Glu Leu Pro Gly Gln Xaa Arg Trp
                                40           45           50
ctc act cct gta atc cca gca ctt tgg gag gcc gag gca gga gga tca      246
Leu Thr Pro Val Ile Pro Ala Leu Trp Glu Ala Glu Ala Gly Gly Ser
                                55           60           65

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004220"666ET560

cga ggt cag gag atc gag acc atc cta gcw aca caa tgn agc cca tct	294
Arg Gly Gln Glu Ile Glu Thr Ile Leu Ala Thr Gln Xaa Ser Pro Ser	
70 75 80 85	
cta ctg aaa att aag tca ggc gtg gtg gtg ggc g	328
Leu Leu Lys Ile Lys Ser Gly Val Val Val Gly	
90 95	

<210> 3048  
 <211> 337  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 162..335

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tgtgcwkagc tggaaagagc tggccgactt cacatgcgca ttcacaaaagg ctgtggctga	120
ggcgcccttt caagtgagtn accccagcaa gtccagcctc c atg ctg ggc ctg tcc	176
Met Leu Gly Leu Ser	
1 5	
ttt acc atg gct ctt gca gtc aaa gca aat gtc cct ttc ccc tca tct	224
Phe Thr Met Ala Leu Ala Val Lys Ala Asn Val Pro Phe Pro Ser Ser	
10 15 20	
ctg cag tca gcc cat tgt ctc tca agc ttg agg cag aag gag ctg acc	272
Leu Gln Ser Ala His Cys Leu Ser Ser Leu Arg Gln Lys Glu Leu Thr	
25 30 35	
tca cac tgg gga ttc ttg gga aga gtc ctc aag cct agc gcc ttt tca	320
Ser His Trp Gly Phe Leu Gly Arg Val Leu Lys Pro Ser Ala Phe Ser	
40 45 50	
aat att ctc ctc ccg cc	337
Asn Ile Leu Leu Pro	
55	

<210> 3049  
 <211> 165  
 <212> DNA  
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<220>  
 <221> CDS  
 <222> 3..164

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ag atg att gag aga atg aca gag aaa atg ttg gaa tct cct cct atg	47
Met Ile Glu Arg Met Thr Glu Lys Met Leu Glu Ser Pro Pro Met	
1 5 10 15	
cat gag tca gag agg aaa ttg cta cca tct tca agg tct act gag gaa	95
His Glu Ser Glu Arg Lys Leu Leu Pro Ser Ser Arg Ser Thr Glu Glu	
20 25 30	
gca cat act gaa tgc tgg aag cac cag ggg aga tcc cca gct gtt ctt	143

Ala His Thr Glu Cys Trp Lys His Gln Gly Arg Ser Pro Ala Val Leu  
 35 40 45  
 gtc aga gca acc ctg aaa gca a 165  
 Val Arg Ala Thr Leu Lys Ala  
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<210> 3050  
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 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 214..372

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 mcgagkcagg gcmaggcact gaatgcagat gcatatactg gagctcagag gatttcagtg 120  
 agttaccccg gccacagcca gtgagcagcg atgtcaagat gtcttgaatc ctgggcctca 180  
 gctgcaaagc cgtaaccagt cctctgtgtt ccc atg ggc cag tgc ttt aca aag 234  
 Met Gly Gln Cys Phe Thr Lys  
 1 5  
 gtc ctt gca ggt tca tcc cta gaa gat tgt ggw att tct ggc cat acg 282  
 Val Leu Ala Gly Ser Ser Leu Glu Asp Cys Gly Ile Ser Gly His Thr  
 10 15 20  
 cag gaa agg tgm mac aga tgc tca agt ata agg cat cag cta cca ccc 330  
 Gln Glu Arg Xaa Xaa Arg Cys Ser Ser Ile Arg His Gln Leu Pro Pro  
 25 30 35  
 cat mtg ctg rtg gtg ctc ata ctt ctc cgg gat acc tcc cct cc 374  
 His Xaa Leu Xaa Val Leu Ile Leu Leu Arg Asp Thr Ser Pro  
 40 45 50

<210> 3051  
 <211> 363  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 136..363

<400> 3051  
 aaacaacagc cacttttgtg ggagccmaag aaacagcagc tttaaaacag ggtaaattatt 60  
 caggsrtcat taggatcctg aatacaagca agccagtaaa atacgggatc tactcagaag 120  
 ggcaaatct atcag atg gtc aag aca aat aaa cct ggg gcm aag gta gcg 171  
 Met Val Lys Thr Asn Lys Pro Gly Ala Lys Val Ala  
 1 5 10  
 gtt tca gca aag aga ggg tct gag gtt act act aac aca tcc cct cag 219  
 Val Ser Ala Lys Arg Gly Ser Glu Val Thr Thr Asn Thr Ser Pro Gln  
 15 20 25  
 cag gga mat ggg tac gtt ctt gmy tca agc cat cga agt gct gca gtc 267  
 Gln Gly Xaa Gly Tyr Val Leu Xaa Ser Ser His Arg Ser Ala Ala Val

30	35	40	
tcc ctg aac cct tcc cac cga aga tca gaa gct gca cat ccc acc act			315
Ser Leu Asn Pro Ser His Arg Arg Ser Glu Ala Ala His Pro Thr Thr			
45	50	55	60
ccc' cat tcg gca tca gac tac cct cga tct gtc tcc ctc cag tca gga			363
Pro His Ser Ala Ser Asp Tyr Pro Arg Ser Val Ser Leu Gln Ser Gly			
65	70	75	

<210> 3052  
 <211> 423  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 258..422

<400> 3052	
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ggacaagatg gtagagccca tggattaccc catcgagcgg ccacctcaga ggagatgcca	120
cccatcatca aaagactaaa ttgggaaaag aagcctcctg gcttggtgca gtggctcaca	180
cctgtaatcc cagcactctg ggaggccaag gcgggctgat cacttgagct caggtgttcg	240
agaccagcct ggccaac atg gtg agc ctg cgt cac ctg gct tct ggc aca	290
Met Val Ser Leu Arg His Leu Ala Ser Gly Thr	
1 5 10	
cag ctc ggc cac tgt gtc cct cct gcc tcc ctg gca ggt cct tct agg	338
Gln Leu Gly His Cys Val Pro Pro Ala Ser Leu Ala Gly Pro Ser Arg	
15 20 25	
ggc cct ctc ctg gct ggc ttt cca ggg cat tcc ttc cac tct atc cag	386
Gly Pro Leu Leu Ala Gly Phe Pro Gly His Ser Phe His Ser Ile Gln	
30 35 40	
ggt cct tcc maa gac cac acc cag gtc cca gtc att c	423
Gly Pro Ser Xaa Asp His Thr Gln Val Pro Val Ile	
45 50 55	

<210> 3053  
 <211> 435  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 262..435

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anbtctctgag ccacaggggt tttaggagca tctttcattc tagtgtttg tctttgaccc	60
cggttcccaa caaacagctc ctactccctt ggaatttatt gggatgatggg agtgtcttgt	120
tctaataaag caactctaag gggctcctgg acggggctgg tcaccagaaa gaccaggtta	180
tgctgagaag cttgaaaccg tcagtcccc gccaccccat cctctgggaa ggnnagagga	240
gctggagatc atgccccatgt g atg agg cct ccg tca aag tcc ttg cac tcc	291
Met Arg Pro Pro Ser Lys Ser Leu His Ser	
1 5 10	

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ggg atg tgg ctg ccg gac atg cgg agg cgc wms gag agc ggc aca cct 339
Gly Met Trp Leu Pro Asp Met Arg Arg Xaa Glu Ser Gly Thr Pro
      15      20      25
gga gag ggc gtg gaa gct cca aca ccc cac ctc cac acc gcg tgc tat 387
Gly Glu Gly Val Glu Ala Pro Thr Pro His Leu His Thr Ala Cys Tyr
      30      35      40
gca tct ctc ccg tca gct gct cct ggg ttt cag tct ttc cta atg aac 435
Ala Ser Leu Pro Ser Ala Ala Pro Gly Phe Gln Ser Phe Leu Met Asn
      45      50      55

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<210> 3054  
<211> 314  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 159..314

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aatcttgta ctgtcactc tttgggtcca cactgctttt atgagctgta acactcaccg 120
cgaaggtctg cagcttcamt cctgaagcca gtgagccc atg agc cca ccg gga gga 176
                        Met Ser Pro Pro Gly Gly
                        1      5
acg aac aac tcc aga tgc gcc acc tta aga gct gta aca ctc acc gcg 224
Thr Asn Asn Ser Arg Cys Ala Thr Leu Arg Ala Val Thr Leu Thr Ala
      10      15      20
aag gtc tgt agc ttc act cct gag cca gcg aga cca cga acc cac cca 272
Lys Val Cys Ser Phe Thr Pro Glu Pro Ala Arg Pro Arg Thr His Pro
      25      30      35
wsn gga wga aac tcc gaa cac atc cga aca tca gaa gga agc 314
Xaa Gly Xaa Asn Ser Glu His Ile Arg Thr Ser Glu Gly Ser
      40      45      50

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<210> 3055  
<211> 328  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 92..328

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<400> 3055
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ctgctgcttc tgctttgaag gcggaggctc c atg ttg tcc cct cag cra gtg 112
                        Met Leu Ser Pro Gln Xaa Val
                        1      5
gca gca gct gcc tca aga rga gca gat gat gcc atg gag agc agc aag 160
Ala Ala Ala Ala Ser Arg Xaa Ala Asp Asp Ala Met Glu Ser Ser Lys
      10      15      20

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cct ggt cca gtg cag gtt gtt ttg gtt cag aaa gat caa cat tcc ttt	208
Pro Gly Pro Val Gln Val Val Leu Val Gln Lys Asp Gln His Ser Phe	
25 30 35	
gag cta gat gag aaa gcc ttg gcc agc atc ctc ttg cag gac cac atc	256
Glu Leu Asp Glu Lys Ala Leu Ala Ser Ile Leu Leu Gln Asp His Ile	
40 45 50 55	
cga gat ctt gat gtg gtg gtg gtt tca gtg gct ggt gcc ttc cga aag	304
Arg Asp Leu Asp Val Val Val Val Ser Val Ala Gly Ala Phe Arg Lys	
60 65 70	
ggc aag tcc ttc att ctg gat trc	328
Gly Lys Ser Phe Ile Leu Asp Xaa	
75	

<210> 3056  
 <211> 258  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 10..258

<400> 3056	
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Met Phe Phe Ile Ser Phe Glu Cys Val Pro Arg Ser Arg Ile	
1 5 10	
gct aga tca tat ggt aat tcc gtg ttt aac ttt ttg agg aac tgc cag	99
Ala Arg Ser Tyr Gly Asn Ser Val Phe Asn Phe Leu Arg Asn Cys Gln	
15 20 25 30	
act gtt ttg caa agc agc tgc gms att tta cat tcc cat cag caa tgt	147
Thr Val Leu Gln Ser Ser Cys Xaa Ile Leu His Ser His Gln Gln Cys	
35 40 45	
ctg agg gtt cca att tct cca cat tct tgc caa cat ttg tct ttk aag	195
Leu Arg Val Pro Ile Ser Pro His Ser Cys Gln His Leu Ser Xaa Lys	
50 55 60	
att cta gcc atc cat cct agt gtc tgt gda gtg gca tct cat tgt ggt	243
Ile Leu Ala Ile His Pro Ser Val Cys Xaa Val Ala Ser His Cys Gly	
65 70 75	
ttt gat ttt ttt ttt	258
Phe Asp Phe Phe Phe	
80	

<210> 3057  
 <211> 402  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 49..402

<400> 3057

004220"666E560





<210> 3059  
 <211> 275  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 72..275

<400> 3059  
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 tcccatccat c atg act gcc atc cga cta cga gaa ttt att gag cgt cgc 110  
 Met Thr Ala Ile Arg Leu Arg Glu Phe Ile Glu Arg Arg  
 1 5 10  
 cca gtg atc ccg cca agt ata ttc atc gct cac caa gga aga gac gtt 158  
 Pro Val Ile Pro Pro Ser Ile Phe Ile Ala His Gln Gly Arg Asp Val  
 15 20 25  
 caa ggc tat tac cct ggg cag ctg gca aga ctc cat ttt gat cat agt 206  
 Gln Gly Tyr Tyr Pro Gly Gln Leu Ala Arg Leu His Phe Asp His Ser  
 30 35 40 45  
 gca aag aga gct ccc aga ccg ctc ata gac ttg aca att cca ccc aag 254  
 Ala Lys Arg Ala Pro Arg Pro Leu Ile Asp Leu Thr Ile Pro Pro Lys  
 50 55 60  
 aca aaa tat cac tat cag ccc 275  
 Thr Lys Tyr His Tyr Gln Pro  
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<210> 3060  
 <211> 403  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 26..403

<400> 3060  
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 Met Tyr Ser Leu Cys Leu Leu Ala Thr  
 1 5  
 tta atg gga gaa gat gta tgg tct tat gca aag gga ctt cct cac atg 100  
 Leu Met Gly Glu Asp Val Trp Ser Tyr Ala Lys Gly Leu Pro His Met  
 10 15 20 25  
 ttt cag cag ggt ggt gta ttc tac agt att atg aag aaa acc atg ggt 148  
 Phe Gln Gln Gly Gly Val Phe Tyr Ser Ile Met Lys Lys Thr Met Gly  
 30 35 40  
 atg gct gat ggc aag cat tgt ast ttt cca cat ctg cct ggc aaa acc 196  
 Met Ala Asp Gly Lys His Cys Xaa Phe Pro His Leu Pro Gly Lys Thr  
 45 50 55  
 ttt gtc tat aat gct tct gaa gat aga ctg gaa ttg tgt gtg gat gct 244  
 Phe Val Tyr Asn Ala Ser Glu Asp Arg Leu Glu Leu Cys Val Asp Ala  
 60 65 70

gca gga cat ttc ccc att ggt cct gat gtt gaa gat tta gtt aaa gag	292
Ala Gly His Phe Pro Ile Gly Pro Asp Val Glu Asp Leu Val Lys Glu	
75 80 85	
gct gta agt cag gtt cga gca gag gct act aca aga agt agg gaa tca	340
Ala Val Ser Gln Val Arg Ala Glu Ala Thr Thr Arg Ser Arg Glu Ser	
90 95 100 105	
agt ccc tca cat ggg cta tta aaa cta ggt agt ggt gga gta gtg aaa	388
Ser Pro Ser His Gly Leu Leu Lys Leu Gly Ser Gly Gly Val Val Lys	
110 115 120	
aga aat ctg agc ata	403
Arg Asn Leu Ser Ile	
125	

<210> 3061  
 <211> 310  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 121..309

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atcttggtga ttgcagtcta ccctctggcc tttaaaaatt gtctgagcct tgattcgatc	120
atg aaa cca gct tac cct tcc cct gtg tgc tgg ccc cag ttt tct aac	168
Met Lys Pro Ala Tyr Pro Ser Pro Val Cys Trp Pro Gln Phe Ser Asn	
1 5 10 15	
cag gtg ttg aat gaa ctg gat gga ctc tgc cag atc cct ccg tgc aag	216
Gln Val Leu Asn Glu Leu Asp Gly Leu Cys Gln Ile Pro Pro Cys Lys	
20 25 30	
gct gga atc agt cca ttg ttc aas tgt gcc ctt tgg ggm tgt ggt tca	264
Ala Gly Ile Ser Pro Leu Phe Xaa Cys Ala Leu Trp Gly Cys Gly Ser	
35 40 45	
ttt ggc tct gat ttt tcc tat atg ttc tct cct cca acc ccc ata a	310
Phe Gly Ser Asp Phe Ser Tyr Met Phe Ser Pro Pro Thr Pro Ile	
50 55 60	

<210> 3062  
 <211> 202  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 5..202

<400> 3062	
agag atg ggg ttt ctc cat gtt ggt cag gct ggt ctg gaa ctc cca acc	49
Met Gly Phe Leu His Val Gly Gln Ala Gly Leu Glu Leu Pro Thr	
1 5 10 15	
tca gat ctg ccc gcc tcg gcc tcc caa agt gct ggg att ata ggt gtg	97

Ser	Asp	Leu	Pro	Ala	Ser	Ala	Ser	Gln	Ser	Ala	Gly	Ile	Ile	Gly	Val	
				20				25						30		
ggc	cac	cac	acc	ggc	ctc	cct	tgt	tct	tta	aga	tat	ctc	caa	gag	atg	145
Gly	His	His	Thr	Gly	Leu	Pro	Cys	Ser	Leu	Arg	Tyr	Leu	Gln	Glu	Met	
			35				40						45			
cag	agc	cct	agg	ctg	gca	gca	act	ttc	ttt	ccc	tgg	cac	gac	aac	gac	193
Gln	Ser	Pro	Arg	Leu	Ala	Ala	Thr	Phe	Phe	Pro	Trp	His	Asp	Asn	Asp	
		50					55				60					
ccc	cgc	aat														202
Pro	Arg	Asn														
		65														

<210> 3063  
 <211> 265  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 106..264

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gtttgtcttt	ctcggaaaca	acagtaacga	taagcctctt	ggnat atg	gag gcc gct		117								
				Met	Glu Ala Ala										
				1											
gcg gac	ggc ccg	gct gag	acc caa	agc ccg	gtg gaa	aaa gac	agc ccg								
Ala Asp	Gly Pro	Ala Glu	Thr Gln	Ser Pro	Val Glu	Lys Asp	Ser Pro								
5		10		15		20									
gcg aag	acc caa	agc cca	gcc caa	gac acc	tca atc	atg tcg	aga aat								
Ala Lys	Thr Gln	Ser Pro	Ala Gln	Asp Thr	Ser Ile	Met Ser	Arg Asn								
	25		30		35										
aac gca	gat aca	ggc aga	gtt ctt	gcc tta	cca gag	cac aag	aag aag								
Asn Ala	Asp Thr	Gly Arg	Val Leu	Ala Leu	Pro Glu	His Lys	Lys Lys								
	40		45		50										
cgc c							265								
Arg															

<210> 3064  
 <211> 313  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 159..311

<400> 3064															
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aatcttggtta	ctgtcactc	tttgggtcca	cactgctttt	atgagctgta	acactcaccg		120								
cgaaggctcg	cagcttcact	cctgaagcca	gtgagccc	atg agc	cca ccg	gga gga	176								
				Met	Ser Pro	Pro Gly	Gly								

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<220>  
<221> CDS  
<222> 10..183
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<210> 3066
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<212> DNA
<213> Homo sapiens
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                        Met Glu Tyr Ile Tyr Ile Xaa Phe Ile Leu
                        1               5               10
ttt tat ttt ttt gag atg aac tct tgc tgt ttc gcc cag gct gga gtg      100
Phe Tyr Phe Phe Glu Met Asn Ser Cys Cys Phe Ala Gln Ala Gly Val
                        15               20               25
cag tgg cgt gat ctc ggc tca ctg caa cct cma tct ccc ggg ttc aag      148
Gln Trp Arg Asp Leu Gly Ser Leu Gln Pro Xaa Ser Pro Gly Phe Lys

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	30		35		40	
caa ttc tct tgc ctc agc ctc ctg agt agc tgg gac tac cgg cac ccg						196
Gln Phe Ser Cys Leu Ser Leu Leu Ser Ser Trp Asp Tyr Arg His Pro						
	45		50		55	
cca cca cc						204
Pro Pro						
60						

<210> 3067  
 <211> 355  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 3..353

<400> 3067	
ca atg gaa ata tta gca aag gca aag gct gat atg act ata gtt gat	47
Met Glu Ile Leu Ala Lys Ala Lys Ala Asp Met Thr Ile Val Asp	
1 5 10 15	
aat gaa gga aaa ggt gtt ttg ttt tac tgc att tta ccg act aag cgg	95
Asn Glu Gly Lys Gly Val Leu Phe Tyr Cys Ile Leu Pro Thr Lys Arg	
20 25 30	
cat tat cgc tgt gct ctg atc gcc ctt gaa cat ggt gca gat gtc aac	143
His Tyr Arg Cys Ala Leu Ile Ala Leu Glu His Gly Ala Asp Val Asn	
35 40 45	
aat tct acc tat gaa gga aag cca ata ttc ctt aga gct tgt gaa gat	191
Asn Ser Thr Tyr Glu Gly Lys Pro Ile Phe Leu Arg Ala Cys Glu Asp	
50 55 60	
gca cat gat gtt aaa gat gtg tgc ctg aca ttt ttg gaa aaa gga gcc	239
Ala His Asp Val Lys Asp Val Cys Leu Thr Phe Leu Glu Lys Gly Ala	
65 70 75	
aat cct aat gca atc aac tca tcc aca ggc cgc aca gct tta atg gaa	287
Asn Pro Asn Ala Ile Asn Ser Ser Thr Gly Arg Thr Ala Leu Met Glu	
80 85 90 95	
gcg tca aga gaa bgg gta gtg gaa ata gtt cga ggc ata ttg gaa aga	335
Ala Ser Arg Glu Xaa Val Val Glu Ile Val Arg Gly Ile Leu Glu Arg	
100 105 110	
sga ggt gaa gtg aat gca tt	355
Xaa Gly Glu Val Asn Ala	
115	

<210> 3068  
 <211> 168  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 14..166

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atatttagtg gag atg ggg ttt ctc cat gtt gga cga ggc tgg tct caa 49  
 Met Gly Phe Leu His Val Gly Arg Gly Trp Ser Gln  
 1 5 10  
 act cga cct cgg gtg atc cac ccg cct ggg cct ccc aag gtg ctg gga 97  
 Thr Arg Pro Arg Val Ile His Pro Pro Gly Pro Pro Lys Val Leu Gly  
 15 20 25  
 tta cag ntg tgg gcc acc gtg ccc ggc cga ttc tta ttt ttc aaa aar 145  
 Leu Gln Xaa Trp Ala Thr Val Pro Gly Arg Phe Leu Phe Phe Lys Lys  
 30 35 40  
 tta cat gac aaa cag cag ccc at 168  
 Leu His Asp Lys Gln Gln Pro  
 45 50

&lt;210&gt; 3069

&lt;211&gt; 273

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 119..271

&lt;400&gt; 3069

ctctctgga acatctggtg ggtactacag gccctattcc aggccctatg gcctgtggaa 60  
 cctcaccacg ggggggaggg ctgggccaga cggagacatc acctgtggtg tcagcccc 118  
 atg gat gag aca gag tgg ata cac aga cat ccc aag gct gag gac cta 166  
 Met Asp Glu Thr Glu Trp Ile His Arg His Pro Lys Ala Glu Asp Leu  
 1 5 10 15  
 agg gtt ggg ctc atc agc tgg gcn gga acc tac cks acc ttt gag gca 214  
 Arg Val Gly Leu Ile Ser Trp Ala Gly Thr Tyr Xaa Thr Phe Glu Ala  
 20 25 30  
 tgc aag aat aca gtc act gca act gcg aag agt ttg ggc agg aga cag 262  
 Cys Lys Asn Thr Val Thr Ala Thr Ala Lys Ser Leu Gly Arg Arg Gln  
 35 40 45  
 acc tgg gag ta 273  
 Thr Trp Glu  
 50

&lt;210&gt; 3070

&lt;211&gt; 338

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 66..338

&lt;400&gt; 3070

attggcccca cctccaattc tctgggctct gcctcccaca ctgcctggg agccgcaggw 60  
 ragng atg ctg gtg ccc acg ctc ccc gct gcc ggg yag gas ccc cca ccc 110  
 Met Leu Val Pro Thr Leu Pro Ala Ala Gly Xaa Xaa Pro Pro Pro

1	5	10	15	
acc acc gaa gct ggg gct agg ctc ttt gat ctg mtc ctg ccc cga ggg	158			
Thr Thr Glu Ala Gly Ala Arg Leu Phe Asp Leu Xaa Leu Pro Arg Gly				
20 25 30				
gag cct aaa agc caa agc cac gtc ttc cac cgg tgg cas rag cac ctt	206			
Glu Pro Lys Ser Gln Ser His Val Phe His Arg Trp Xaa Xaa His Leu				
35 40 45				
cct cgt gtc ctc ctt ggt tgc tgc gca scc tgg gcc tcc tgc tcc tgt	254			
Pro Arg Val Leu Leu Gly Cys Cys Ala Xaa Trp Ala Ser Cys Ser Cys				
50 55 60				
tcg ttt cag ggg cct ctg ccc ttc ccg ccg gtg tgc aca gsc cca ggt	302			
Ser Phe Gln Gly Pro Leu Pro Phe Pro Pro Val Cys Thr Xaa Pro Gly				
65 70 75				
tct gcc ttg aga act ctc ccc tct gca gtg gaa aga	338			
Ser Ala Leu Arg Thr Leu Pro Ser Ala Val Glu Arg				
80 85 90				

<210> 3071  
 <211> 251  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 12..251

<400> 3071	
agtcttgggtt c atg wct acc cgt ctt acc aat agg wgt tcc cac tcc gta	50
Met Xaa Thr Arg Leu Thr Asn Arg Xaa Ser His Ser Val	
1 5 10	
acc ttt gga gtc aat gag gcc ccc gat ctg agt gag gtt gca gtd wct	98
Thr Phe Gly Val Asn Glu Ala Pro Asp Leu Ser Glu Val Ala Val Xaa	
15 20 25	
cwg cgt cac ata ctc aat gcw ggg tgg act cca kca gca gcg cgt agt	146
Xaa Arg His Ile Leu Asn Ala Gly Trp Thr Pro Xaa Ala Ala Arg Ser	
30 35 40 45	
ctg tgg tgg aga ttt ttg att tct gga ggg aaa gaa aac aca ctc acc	194
Leu Trp Trp Arg Phe Leu Ile Ser Gly Gly Lys Glu Asn Thr Leu Thr	
50 55 60	
agc aga aga ggg cdg gaa aaa tac gac cta aag atk ctt tta tac kcw	242
Ser Arg Arg Gly Xaa Glu Lys Tyr Asp Leu Lys Xaa Leu Leu Tyr Xaa	
65 70 75	
acc aca agc	251
Thr Thr Ser	
80	

<210> 3072  
 <211> 361  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS



<222> 136..360

<400> 3072

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ataggtaaac aggctctgta tccgtggcag cggccgtggc aggctggctg ggtaccggct    60
gtcgtgacc caggagaagc tgcctgtcta catcagcctg ggctgcagcg cgctgccgcc    120
gcggggcccg cagcc atg gcc aag gac atc ctg ggt gaa gca ggg cta cac    171
          Met Ala Lys Asp Ile Leu Gly Glu Ala Gly Leu His
              1             5             10
ttt gat gaa ctg aac aag ctg agg gtg ttg gac cca gag gtt acc cag    219
Phe Asp Glu Leu Asn Lys Leu Arg Val Leu Asp Pro Glu Val Thr Gln
          15             20             25
cag acc ata gag ctg aag gaa gag tgc aaa gac ttt gtg gac aaa att    267
Gln Thr Ile Glu Leu Lys Glu Glu Cys Lys Asp Phe Val Asp Lys Ile
          30             35             40
ggc cag ttt cag aaa ata gtt ggt ggt tta att gag ctt gtt gat caa    315
Gly Gln Phe Gln Lys Ile Val Gly Gly Leu Ile Glu Leu Val Asp Gln
          45             50             55             60
ctt gcm aaa gaa gca gaa aat gaa aag atg aag gcc atc ggt gcc c    361
Leu Ala Lys Glu Ala Glu Asn Glu Lys Met Lys Ala Ile Gly Ala
              65             70             75
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<210> 3073

<211> 247

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 73..246

<400> 3073

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atcaacacca gacctgtcct acaagaagtg ctagctaaag agagttcttc aatctgaaag    60
aaaaagacct ta atg ggc att aag aac tca tct gaa gca ggt crt aag acc    111
          Met Gly Ile Lys Asn Ser Ser Glu Ala Gly Xaa Lys Thr
              1             5             10
tca ttm aag agg tac ctt ccc tat acc cag agg aaa gaa gca ttc tta    159
Ser Xaa Lys Arg Tyr Leu Pro Tyr Thr Gln Arg Lys Glu Ala Phe Leu
          15             20             25
tct tca aag rca cag aaa tgt caa gag gaa tct gaa caa aca ggc ttt    207
Ser Ser Lys Xaa Gln Lys Cys Gln Glu Glu Ser Glu Gln Thr Gly Phe
          30             35             40             45
gct aag ttc ttc tca att act acc gtt aga tya tac cac c    247
Ala Lys Phe Phe Ser Ile Thr Thr Val Arg Xaa Tyr His
              50             55
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<210> 3074

<211> 243

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 57..242

<400> 3074

taattacata stcatctata aatatataca aatcayataa atttagtaaa trraat atg 59  
Met  
1  
tgg cat atg atg arr gtr sct gtc acc atg gag aaa gaa gga ggg maa 107  
Trp His Met Met Xaa Val Xaa Val Thr Met Glu Lys Glu Gly Gly Xaa  
5 10 15  
aat acc ttt aaa aas maa mmt aag gmr aat tca aca agc cag cgc gtc 155  
Asn Thr Phe Lys Xaa Xaa Xaa Lys Xaa Asn Ser Thr Ser Gln Arg Val  
20 25 30  
cac acc aac atg ctc agg tgc ctt nag tgc aat aaa cag cat gtt cgg 203  
His Thr Asn Met Leu Arg Cys Leu Xaa Cys Asn Lys Gln His Val Arg  
35 40 45  
cgg ctc gct ttc tgc agg aat cct ttt tca gtg ctc cct t 243  
Arg Leu Ala Phe Cys Arg Asn Pro Phe Ser Val Leu Pro  
50 55 60

<210> 3075

<211> 390

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 160..390

<400> 3075

agaagctctc aaatatcact gttgtgaata cagagaggga aaaccaactg taacgtgcc 60  
cccaaataaa gtcattact agtcctgtcc agcaacgtgc ctctcctggc cctagagtgc 120  
ttggaaatag cccaggccaa agagaaggcc tttctcccc atg gtc agc cac acg 174  
Met Val Ser His Thr  
1 5  
ttc cac atg cgc aca gag gag tct gat gcc tca cag gag ggc gat gac 222  
Phe His Met Arg Thr Glu Glu Ser Asp Ala Ser Gln Glu Gly Asp Asp  
10 15 20  
cta ccc aag tcc tca gca aac acc agc cat ccc aag cag gat gac agc 270  
Leu Pro Lys Ser Ser Ala Asn Thr Ser His Pro Lys Gln Asp Asp Ser  
25 30 35  
ccc aag tcc tca gaa gaa acc atc cag ccc aag gag ggt gac atn ncc 318  
Pro Lys Ser Ser Glu Glu Thr Ile Gln Pro Lys Glu Gly Asp Xaa Xaa  
40 45 50  
aan ncc cca gaa gaa acc atc caa tcc aag aag gag gac ctc ccc aag 366  
Xaa Xaa Pro Glu Glu Thr Ile Gln Ser Lys Lys Glu Asp Leu Pro Lys  
55 60 65  
tcc tcg gaa aaa gcc acc cag ccc 390  
Ser Ser Glu Lys Ala Thr Gln Pro  
70 75

<210> 3076

<211> 341

<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 114..341

<400> 3076  
aggcagattc cacttggcac ttttcagggg acattcagag gcatcagccc cttcctcctc 60  
accagctccc agagttccca tctccatccc caatcctaaa graaggamat cgg atg 116  
Met  
1  
cca cgg tcc tca agg agc cct ggg gac cca ggc gcc cta ctc gaa gat 164  
Pro Arg Ser Ser Arg Ser Pro Gly Asp Pro Gly Ala Leu Leu Glu Asp  
5 10 15  
gtg gcc nac aat ccc aga ccc cgg agg att gcc cag cga ggc cgg aac 212  
Val Ala Xaa Asn Pro Arg Pro Arg Arg Ile Ala Gln Arg Gly Arg Asn  
20 25 30  
acc agc agg atg gca gat gac acc tcc cca rac atg aat gac aac atc 260  
Thr Ser Arg Met Ala Asp Asp Thr Ser Pro Xaa Met Asn Asp Asn Ile  
35 40 45  
ctg ttg cct gtc mgc aas aat gac caa gcc cta ggc ctg act cag tgc 308  
Leu Leu Pro Val Xaa Xaa Asn Asp Gln Ala Leu Gly Leu Thr Gln Cys  
50 55 60 65  
atg ctg gga tgt gtg tcc tgg ttc acc tgt ttt 341  
Met Leu Gly Cys Val Ser Trp Phe Thr Cys Phe  
70 75

<210> 3077  
<211> 359  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 146..358

<400> 3077  
ataaaaaataa aaatcggagt tttattcaac caatcccttc tgcattgtgtg gaaactgtgg 60  
tgggggcccat ccctgccctg gaagatcctt tgcaaaaaga gttctgtawt actaggrmac 120  
tgacattttg gagggacaag ctrnc atg aaa gta aat gtc agg ctt tct gtc 172  
Met Lys Val Asn Val Arg Leu Ser Val  
1 5  
cag aga gtg cct acc aag gat gag gca gga ctg gct tcc tgg aag ggg 220  
Gln Arg Val Pro Thr Lys Asp Glu Ala Gly Leu Ala Ser Trp Lys Gly  
10 15 20 25  
aaa tat gta aca ggt gtg agc tgg aac aga agc ctc aca gtc aag 268  
Lys Tyr Val Thr Gly Val Ser Trp Asn Arg Arg Ser Leu Thr Val Lys  
30 35 40  
gaa gat agc tca ttt tcc agc cga aaa atg atg aca ggc ata atg ggg 316  
Glu Asp Ser Ser Phe Ser Ser Arg Lys Met Met Thr Gly Ile Met Gly  
45 50 55

aca ctg ggt tgg ggg agg gtt tat gtt tgg aaa agg aag gag c 359  
 Thr Leu Gly Trp Gly Arg Val Tyr Val Trp Lys Arg Lys Glu  
           60                          65                          70

<210> 3078  
 <211> 372  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 140..370

<400> 3078  
 acaagaaaag aacatggtct agactgaagt accaactaaa tcatctcctt tcaaattatc 60  
 accgacacca tcatggattc aagcaccgca cacagtccgg tgtttctggt atnhcctcca 120  
 gaaatcactg cttcaraat atg agt cca cag aac ttt cag cca cga cct ttt 172  
                           Met Ser Pro Gln Asn Phe Gln Pro Arg Pro Phe  
                                   1                          5                          10  
 caa ctc aaa gcc cct tgc aaa aaa tta ttt gct aga aaa atg aaa atc 220  
 Gln Leu Lys Ala Pro Cys Lys Lys Leu Phe Ala Arg Lys Met Lys Ile  
                           15                          20                          25  
 tta ggg act atc cag awc ctg ttt gga att atg ncc ttt tct ttt gga 268  
 Leu Gly Thr Ile Gln Xaa Leu Phe Gly Ile Met Xaa Phe Ser Phe Gly  
                           30                          35                          40  
 gtt atc ttc ctt ttm acc ttg tnd aaa cca tat cca agg ttt ccc ttt 316  
 Val Ile Phe Leu Xaa Thr Leu Xaa Lys Pro Tyr Pro Arg Phe Pro Phe  
                           45                          50                          55  
 ata ttt ctt tca nra tat cca ttc tgg ggc tct gtt ttg ttc att aat 364  
 Ile Phe Leu Ser Xaa Tyr Pro Phe Trp Gly Ser Val Leu Phe Ile Asn  
                           60                          65                          70                          75  
 tct gga gc 372  
 Ser Gly

<210> 3079  
 <211> 322  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 67..321

<400> 3079  
 gaggggcata tttatggagg ggactctcca gggctagatg attcaagggt ggcaacacaa 60  
 tgagcc atg gag gtg gct ggg gga gcc tgt tgg gag agt agg gag gga 108  
                           Met Glu Val Ala Gly Gly Ala Cys Trp Glu Ser Arg Glu Gly  
                                   1                          5                          10  
 tct gga gcw gga aac tam caa gcw vaa tcc aaa gag ata tcc aag gwg 156  
 Ser Gly Ala Gly Asn Xaa Gln Ala Xaa Ser Lys Glu Ile Ser Lys Xaa  
                           15                          20                          25                          30  
 ggt cct ggg aca aga gtg acg gct gag atg ggg atg rcg agc agc tgc 204

Gly	Pro	Gly	Thr	Arg	Val	Thr	Ala	Glu	Met	Gly	Met	Xaa	Ser	Ser	Cys	
				35					40						45	
cct	acc	tng	atg	gaa	ggc	caa	gtg	cag	tgg	ctc	aca	ccc	gta	acc	cca	252
Pro	Thr	Xaa	Met	Glu	Gly	Gln	Val	Gln	Trp	Leu	Thr	Pro	Val	Thr	Pro	
			50					55					60			
gca	ctt	ttg	gag	gct	gag	atg	gga	gga	tca	ctt	gag	acc	agg	agt	tcg	300
Ala	Leu	Leu	Glu	Ala	Glu	Met	Gly	Gly	Ser	Leu	Glu	Thr	Arg	Ser	Ser	
		65					70					75				
cga	cca	gcc	mgg	aga	tgc	tat	a									322
Arg	Pro	Ala	Arg	Arg	Cys	Tyr										
	80					85										

<210> 3080  
 <211> 249  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 29..247

<400> 3080																
caatttc	atc	tgtat	cccta	caaagg	ac	atg	aac	tca	tca	ttt	ttt	ttt	aat			52
						Met	Asn	Ser	Ser	Phe	Phe	Phe	Asn			
						1				5						
ttt	ttt	tat	tta	ttt	tat	ttt	ttt	att	ttt	tat	ttt	tat	tat	tat	tat	100
Phe	Phe	Tyr	Leu	Phe	Tyr	Phe	Phe	Ile	Phe	Tyr	Phe	Tyr	Tyr	Tyr	Tyr	
		10				15				20						
tat	ttt	kat	tat	act	twa	agt	ttt	agg	gta	cat	gtg	cac	att	gtg	cag	148
Tyr	Phe	Xaa	Tyr	Thr	Xaa	Ser	Phe	Arg	Val	His	Val	His	Ile	Val	Gln	
		25			30				35					40		
ggt	agt	tac	ata	tgt	ata	cat	gtg	cca	tgc	tgg	tgc	act	gca	ccc	act	196
Val	Ser	Tyr	Ile	Cys	Ile	His	Val	Pro	Cys	Trp	Cys	Thr	Ala	Pro	Thr	
			45				50						55			
aac	ttg	tca	tct	agc	ctt	agg	tat	atc	tcc	caa	tgc	tat	ccc	tcc	ccg	244
Asn	Leu	Ser	Ser	Ser	Leu	Arg	Tyr	Ile	Ser	Gln	Cys	Tyr	Pro	Ser	Pro	
			60				65						70			
ctc	aa															249
Leu																

<210> 3081  
 <211> 171  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 9..170

<400> 3081																
ataatgga	atg	gaa	gtg	aat	gga	atc	aac	acg	agt	gca	ggg	gaa	tgg	aat		50
	Met	Glu	Val	Asn	Gly	Ile	Asn	Thr	Ser	Ala	Gly	Glu	Trp	Asn		

1	5	10	
gga atg gaa tgc aat gga atg gaa tca tcc gga atg gaa tgg aat gga	98		
Gly Met Glu Cys Asn Gly Met Glu Ser Ser Gly Met Glu Trp Asn Gly			
15 20 25 30			
atg gaa tca act cca ttg caa tgg aat gga atg gaa tgg aat gga ata	146		
Met Glu Ser Thr Pro Leu Gln Trp Asn Gly Met Glu Trp Asn Gly Ile			
35 40 45			
gaa tgg aat gga att aac ccg atg a	171		
Glu Trp Asn Gly Ile Asn Pro Met			
50			

<210> 3082  
 <211> 192  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 1..192

<400> 3082	
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Met Asn Asp Gly Phe Phe Leu Lys Val Thr Ala Leu Thr Gln Lys Pro	
1 5 10 15	
gat gtc tac atc ccc gag acc ctg gag ccc ggg cas ccg gtg acg gtc	96
Asp Val Tyr Ile Pro Glu Thr Leu Glu Pro Gly Xaa Pro Val Thr Val	
20 25 30	
atc tgt gts ttt aac tgg gcc ttt gag gaa tgt cca ccc cct tct ttc	144
Ile Cys Val Phe Asn Trp Ala Phe Glu Glu Cys Pro Pro Pro Ser Phe	
35 40 45	
tcc tgg acg ggg gct gcc ctc tcc tcc caa gga acc aaa cca acg acc	192
Ser Trp Thr Gly Ala Ala Leu Ser Ser Gln Gly Thr Lys Pro Thr Thr	
50 55 60	

<210> 3083  
 <211> 233  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 50..232

<400> 3083	
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Met Pro Arg	
1	
caa cat aaa caa gac cca ggg aca cca aca ggg tat ggt gct gtg ccc	106
Gln His Lys Gln Asp Pro Gly Thr Pro Thr Gly Tyr Gly Ala Val Pro	
5 10 15	
cag agt cag ggt cct ggg ttc tta ccc agg gaa gtg aga rat aaa gat	154
Gln Ser Gln Gly Pro Gly Phe Leu Pro Arg Glu Val Arg Xaa Lys Asp	

20	25	30	35	
aac ttt tcc ctg ctc cct ctc tcc tcc cct gac act gat ctt ccc acc				202
Asn Phe Ser Leu Leu Pro Leu Ser Ser Pro Asp Thr Asp Leu Pro Thr				
	40	45	50	
ctg tac ctc cct ctt ctg ctc cca aac ccc c				233
Leu Tyr Leu Pro Leu Leu Leu Pro Asn Pro				
	55	60		

<210> 3084  
 <211> 208  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 30..206

<400> 3084	
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	Met Gln Thr Asn Glu Arg Arg Gln
	1 5
gta ggc cct cct tca ttt gtt cct gat tca cca tca atc cct gtt gga	101
Val Gly Pro Pro Ser Phe Val Pro Asp Ser Pro Ser Ile Pro Val Gly	
	10 15 20
agc cca aat ttt tct tct gtg aag cag gga cat gga aat ctt tct ggg	149
Ser Pro Asn Phe Ser Ser Val Lys Gln Gly His Gly Asn Leu Ser Gly	
	25 30 35 40
acc agc ttc cag cag tcc cca gtg agg cct tct ttt aca cct gct tta	197
Thr Ser Phe Gln Gln Ser Pro Val Arg Pro Ser Phe Thr Pro Ala Leu	
	45 50 55
cca gca gca ca	208
Pro Ala Ala	

<210> 3085  
 <211> 276  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 73..276

<400> 3085	
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acactcagga ga atg gtc ctg tgg gga gag tgg gtc gga gtg ggg cgg ccc	111
	Met Val Leu Trp Gly Glu Trp Val Gly Val Gly Arg Pro
	1 5 10
ggg gca ccc cag cct tcc ggc tct tct ctg gcc ctg agg gtc acg ggg	159
Gly Ala Pro Gln Pro Ser Gly Ser Ser Leu Ala Leu Arg Val Thr Gly	
	15 20 25
acg cct gga ccc acc cag cag gtg acc ttc atc tgg cct cat ggc ctc	207
Thr Pro Gly Pro Thr Gln Gln Val Thr Phe Ile Trp Pro His Gly Leu	

30	35	40	45	
tgc ttt tgt ctc agg ccc cca gaa cag cag ggg ctg gac ctg cat cag	255			
Cys Phe Cys Leu Arg Pro Pro Glu Gln Gln Gly Leu Asp Leu His Gln				
50	55	60		
tct cct ccc tcc cac gcc tat	276			
Ser Pro Pro Ser His Ala Tyr				
65				

<210> 3086  
 <211> 291  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 120..290

<400> 3086	
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cctcaagtga tgtacccccg ttggcctccc agagtgctag gattacaagc gtgagcacc	119
atg ccc ggc ctg ttg gac ttt ata tcc tca gaa att tat aca aag cct	167
Met Pro Gly Leu Leu Asp Phe Ile Ser Ser Glu Ile Tyr Thr Lys Pro	
1 5 10 15	
aaa ata ata tca cta tta aca att ata ata ata atg att agc att tgt	215
Lys Ile Ile Ser Leu Leu Thr Ile Ile Ile Ile Met Ile Ser Ile Cys	
20 25 30	
ttt tat tac cag gat aga tcc atc aat gtt cag tgt gtt gtt tgt gtt	263
Phe Tyr Tyr Gln Asp Arg Ser Ile Asn Val Gln Cys Val Val Cys Val	
35 40 45	
ttt act cat tta ccc ttc aca gta agc c	291
Phe Thr His Leu Pro Phe Thr Val Ser	
50 55	

<210> 3087  
 <211> 356  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 183..356

<400> 3087	
aactgaagag gagccatgaa ctggacattg atgaaaaccc agcttcagac tttgatgaca	60
gtggttccct tctaggattc aagtatggct caggacaaaa atatggtgga atcccaaatt	120
tcagtcacgc gcaggtcagg tatttagaga agaatgtgaa gcttaagtct aagtacctag	180
ac atg cgc aga caa ata aag atg aaa aac aaa cac atc ttc ttt acc	227
Met Arg Arg Gln Ile Lys Met Lys Asn Lys His Ile Phe Phe Thr	
1 5 10 15	
aaa gag tca gaa aaa cca ttt ttc aag aaa agc aaa att ctg agt aag	275
Lys Glu Ser Glu Lys Pro Phe Phe Lys Lys Ser Lys Ile Leu Ser Lys	
20 25 30	



gta gaa aaa ttc ctc aca tgg gtt aat aaa cca atg gat gaa gaa gca 323  
 Val Glu Lys Phe Leu Thr Trp Val Asn Lys Pro Met Asp Glu Glu Ala  
           35                  40                  45  
 tca cag gaa tca tct tct cat gas hat gtg cac 356  
 Ser Gln Glu Ser Ser Ser His Xaa Xaa Val His  
           50                  55

<210> 3088  
 <211> 221  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 62..220

<400> 3088  
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 c atg tca ccc agc ctg gaa tgc agt ggc gcg atc tcg gct cat tgc aac 109  
   Met Ser Pro Ser Leu Glu Cys Ser Gly Ala Ile Ser Ala His Cys Asn  
     1                  5                  10                  15  
 ctc cgc ctc ctg ggt tca ggc gat tct cct gcc tcg gcc tcc cga gta 157  
 Leu Arg Leu Leu Gly Ser Gly Asp Ser Pro Ala Ser Ala Ser Arg Val  
           20                  25                  30  
 tct ggg att gca gcc atg cgc ctc cac gcc cag cta att ttt gta ttt 205  
 Ser Gly Ile Ala Ala Met Arg Leu His Ala Gln Leu Ile Phe Val Phe  
           35                  40                  45  
 tca gta gag acg gac t 221  
 Ser Val Glu Thr Asp  
     50

<210> 3089  
 <211> 214  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 47..214

<400> 3089  
 atbatgatcn tcatatatca catactgtac tagaagaata gaggtt atg att gga 55  
   Met Ile Gly  
   1  
 cta gac aga gag tgc cag agc aag tat ctg tgg gat gct gag atg aag 103  
 Leu Asp Arg Glu Cys Gln Ser Lys Tyr Leu Trp Asp Ala Glu Met Lys  
     5                  10                  15  
 ata ttc aac ttt cta tct aac aaa gta gat cca gag cct gga aga aaa 151  
 Ile Phe Asn Phe Leu Ser Asn Lys Val Asp Pro Glu Pro Gly Arg Lys  
     20                  25                  30                  35  
 aca gag gct aag ata cag ata ctg gaa acc ctc atg cag gga ctt ttt 199  
 Thr Glu Ala Lys Ile Gln Ile Leu Glu Thr Leu Met Gln Gly Leu Phe

40 45 50 214  
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 gtcattttgc caaataaaac agaaacacca gtttctcagg aggatgcctt gaatctc 177  
 atg aac gag aat ata gac att ctg gag aca gcg atc aag cag gca gct 225  
 Met Asn Glu Asn Ile Asp Ile Leu Glu Thr Ala Ile Lys Gln Ala Ala  
 1 5 10 15  
 gag cag ggt gct cga atc att gtg act cca gaa gat gca ctt tat gga 273  
 Glu Gln Gly Ala Arg Ile Ile Val Thr Pro Glu Asp Ala Leu Tyr Gly  
 20 25 30  
 tgg aaa ttt acc agg gaa act gtt ttc cct tat ctg gag gat atc cca 321  
 Trp Lys Phe Thr Arg Glu Thr Val Phe Pro Tyr Leu Glu Asp Ile Pro  
 35 40 45  
 gac cct cag gtg aac tgg att ccg tgt cag acc ccc 357  
 Asp Pro Gln Val Asn Trp Ile Pro Cys Gln Thr Pro  
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<220>  
 <221> CDS  
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 Met Asp Ser Lys Gly Glu Glu  
 1 5  
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 Ser Lys Ile Ser Tyr Pro Asn Ile Phe Phe Met Ile Asp Ser Xaa Glu  
 10 15 20  
 gag gtg ttc agc gac atg acc gta ggg aag gag aga tgg tct gtg tgg 150  
 Glu Val Phe Ser Asp Met Thr Val Gly Lys Glu Arg Trp Ser Val Trp  
 25 30 35  
 agc tgg tgg cta gtg aca aaa cca aca cgt tcc agg ggg tca tct ttc 198  
 Ser Trp Trp Leu Val Thr Lys Pro Thr Arg Ser Arg Gly Ser Ser Phe



25	30	35	
ggc act gtg gaa att tat aac ttg tca gca aac tac ttt cag gag aaa	200		
Gly Thr Val Glu Ile Tyr Asn Leu Ser Ala Asn Tyr Phe Gln Glu Lys			
40	45	50	
ttt ttc cca ggt cat gag tct cgg gct aca gaa gct ttg tgc tgg gca	248		
Phe Phe Pro Gly His Glu Ser Arg Ala Thr Glu Ala Leu Cys Trp Ala			
55	60	65	
gaa gga cag cga ctc ttt agt gct ggg ctc aat ggc gag att atg gag	296		
Glu Gly Gln Arg Leu Phe Ser Ala Gly Leu Asn Gly Glu Ile Met Glu			
70	75	80	85
tat gat tta cag gcg tta aac atc aag tat gct atg gat gcc ttt gga	344		
Tyr Asp Leu Gln Ala Leu Asn Ile Lys Tyr Ala Met Asp Ala Phe Gly			
90	95	100	
gga cct att tgg agc atg gct gcc agc ccc agt ggc tct caa ctt ttg	392		
Gly Pro Ile Trp Ser Met Ala Ala Ser Pro Ser Gly Ser Gln Leu Leu			
105	110	115	
ggt ggt tgt gaa gat gga tct gt	415		
Val Gly Cys Glu Asp Gly Ser			
120			

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ttg gtt cta gat gtg gga aga gtc act ctt gga gag aac agt agg aaa	98
Leu Val Leu Asp Val Gly Arg Val Thr Leu Gly Glu Asn Ser Arg Lys	
15	20
aaa atg aag gat tgt aaa ctg aga aaa aag cag aat gaa agg gtc tca	146
Lys Met Lys Asp Cys Lys Leu Arg Lys Lys Gln Asn Glu Arg Val Ser	
30	35
cga gct atg tgt gct ctg ctc aat tct gga ggg gga t	183
Arg Ala Met Cys Ala Leu Leu Asn Ser Gly Gly Gly	
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<210> 3095  
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gccaagcc atg gga gac aag aag agc ccc acc agg ccg aag cgg cag ccg    110
      Met Gly Asp Lys Lys Ser Pro Thr Arg Pro Lys Arg Gln Pro
      1           5           10
aag ccg tcc tcg gat gag ggt tac tgg gac tgt agc gtc tgc acc ttc    158
Lys Pro Ser Ser Asp Glu Gly Tyr Trp Asp Cys Ser Val Cys Thr Phe
15           20           25           30
cgg aac agc gcc gag gcc ttc aag tgc atg atg tgc gat gtg cgg aag    206
Arg Asn Ser Ala Glu Ala Phe Lys Cys Met Met Cys Asp Val Arg Lys
      35           40           45
ggc acc tcc acc cgg aaa cct cga cct gtc tcc cag ttg gtt gca cag    254
Gly Thr Ser Thr Arg Lys Pro Arg Pro Val Ser Gln Leu Val Ala Gln
      50           55           60
cag gtt act cag cag ttt gtg cct cct aca cag tca aag aaa gag aaa    302
Gln Val Thr Gln Gln Phe Val Pro Pro Thr Gln Ser Lys Lys Glu Lys
      65           70           75
aaa gat aaa gta gaa aaa gaa aaa agt gaa aag gaa aca act agc aaa    350
Lys Asp Lys Val Glu Lys Glu Lys Ser Glu Lys Glu Thr Thr Ser Lys
      80           85           90
aag aat agc cat aag ama acc agc gc    376
Lys Asn Ser His Lys Xaa Thr Ser
95           100

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&lt;210&gt; 3096

&lt;211&gt; 392

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 210..392

&lt;400&gt; 3096

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tatctagaca agaagaactt aaggaaagag caagagttct gcttgagcaa gcaagaagag    60
atgcagcctt aaaggcgggg aataagcaca ataccaacac agccacccca ttctgcaaca    120
ggcagctaag tgatcaagat gaagagcgac gtcggcagct gagagagaga gtcgctcagc    180
taatagcaga agctcgatct ggagtgaag atg tca gaa ctt ccc agc tat ggt    233
      Met Ser Glu Leu Pro Ser Tyr Gly
      1           5
gaa atg gct gca gaa aag ttg ana gad agg tca aag gca tct gga gat    281
Glu Met Ala Ala Glu Lys Leu Xaa Xaa Arg Ser Lys Ala Ser Gly Asp
10           15           20
gaa aat gat aat att gag ata gat act aac gag gag atc cct gaw ggc    329
Glu Asn Asp Asn Ile Glu Ile Asp Thr Asn Glu Glu Ile Pro Xaa Gly
25           30           35           40
ttt gtt gtm gga ggt gga gat gaa ctt act aac tta gaa aat gac ctt    377
Phe Val Val Gly Gly Asp Glu Leu Thr Asn Leu Glu Asn Asp Leu
      45           50           55
gat act ccc gaa caa    392
Asp Thr Pro Glu Gln
60

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<220>  
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 Met Leu Tyr Phe Leu Phe Ile Tyr Leu  
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 Phe Ile Phe Lys Phe Phe Leu Phe Ile Phe Phe Leu Phe Phe Ser Phe  
 10 15 20 25  
 ttt aat tat tat tat act tta agt ttt agg gta cat gtg cac aac gtg 150  
 Phe Asn Tyr Tyr Tyr Thr Leu Ser Phe Arg Val His Val His Asn Val  
 30 35 40  
 cag gtt act tac ata tgt ata cat gtg cca tgc tgg tgc gct gca ccc 198  
 Gln Val Thr Tyr Ile Cys Ile His Val Pro Cys Trp Cys Ala Ala Pro  
 45 50 55  
 act aac tcg tca tct agc att atg tat atc tcc tgg tgc tat ccc tgc 246  
 Thr Asn Ser Ser Ser Ser Ile Met Tyr Ile Ser Trp Cys Tyr Pro Cys  
 60 65 70  
 ccc ctc ccc cca ccc ct 263  
 Pro Leu Pro Pro Pro  
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 <212> DNA  
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<220>  
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 Met Arg Pro Glu Xaa Pro Ser Pro Ser Phe Gly  
 1 5 10  
 ggc ttt gtg tct acc cta agt gag gca tcc att cgc aag ctg gac cca 160  
 Gly Phe Val Ser Thr Leu Ser Glu Ala Ser Ile Arg Lys Leu Asp Pro  
 15 20 25  
 gac act tct gac tgc act ccc gag aag gac ctg acg cct acc cag tgt 208  
 Asp Thr Ser Asp Cys Thr Pro Glu Lys Asp Leu Thr Pro Thr Gln Cys  
 30 35 40  
 gta cdt cga gat gtg gta ccc ctt ggt ggg cag ggt ggg gga ggg ccc 256  
 Val Xaa Arg Asp Val Val Pro Leu Gly Gly Gln Gly Gly Gly Gly Pro  
 45 50 55

agc ccc tcc cca ggt gga gag ccg ccc cct t  
 Ser Pro Ser Pro Gly Gly Glu Pro Pro Pro  
 60 65

287

<210> 3099  
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 <212> DNA  
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 <222> 208..414

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 aaagggctaa tatccagaat ctacaaagaa ctccaacaaa tttacaagat aagaacaaac 180  
 aaccccatca aaaagtgggc aaaggat atg aac aga cac ttc tca aaa gaw gat 234  
 Met Asn Arg His Phe Ser Lys Xaa Asp  
 1 5  
 att tat gca gcc aac aga cac aca aaa aaa tgc tca tca tca ctg gcc 282  
 Ile Tyr Ala Ala Asn Arg His Thr Lys Lys Cys Ser Ser Ser Leu Ala  
 10 15 20 25  
 atc aga gaa atg caa atc aaa acc aca atg aga tac cat ctc aca cca 330  
 Ile Arg Glu Met Gln Ile Lys Thr Thr Met Arg Tyr His Leu Thr Pro  
 30 35 40  
 gtt aga atg gcg atc att aaa aag tca gga aac aac agg tgc tgg aga 378  
 Val Arg Met Ala Ile Ile Lys Lys Ser Gly Asn Asn Arg Cys Trp Arg  
 45 50 55  
 gga tgt gga gaa ata gaa aca ctt tta cac tgt tgg g 415  
 Gly Cys Gly Glu Ile Glu Thr Leu Leu His Cys Trp  
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<210> 3100  
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 <212> DNA  
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<220>  
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 <222> 208..363

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 aaagggctaa tatccagaat ctacaaagaa ctccaacaaa tttacaagaa aagaacaaac 180  
 aaccccatca aaaagtgggc aaaggat atg aac aga cac ttc tca aaa gaa gat 234  
 Met Asn Arg His Phe Ser Lys Glu Asp  
 1 5  
 att tat gca gcc aac aga cac aca aaa aaa tgc tca tca tca ctg gcc 282  
 Ile Tyr Ala Ala Asn Arg His Thr Lys Lys Cys Ser Ser Ser Leu Ala  
 10 15 20 25

atc aga gav atg car atc aav acc amr atg aga tac cat ctc rca cca 330  
 Ile Arg Xaa Met Gln Ile Xaa Thr Xaa Met Arg Tyr His Leu Xaa Pro  
                   30                  35                  40  
 gtt aga atg gcg rtc att aaa aag tca gga aca 363  
 Val Arg Met Ala Xaa Ile Lys Lys Ser Gly Thr  
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<220>  
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 <222> 138..401

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 ttctccccag gccaaagt atg ggg ctc tgg ctg tgt tct gga agt tca aga 170  
                   Met Gly Leu Trp Leu Cys Ser Gly Ser Ser Arg  
                   1                  5                  10  
 cac tta gtc ctc cac agt ggg tgg aag agt gca agg tct gcc agg tca 218  
 His Leu Val Leu His Ser Gly Trp Lys Ser Ala Arg Ser Ala Arg Ser  
                   15                  20                  25  
 gat gga gac gca gaa cct gct ggt gca agc tgg gca ggt cct gac caa 266  
 Asp Gly Asp Ala Glu Pro Ala Gly Ala Ser Trp Ala Gly Pro Asp Gln  
                   30                  35                  40  
 cct gca tca ggg gat gcc ctg agc tcc aca ggt ctt cat ggg cag ggg 314  
 Pro Ala Ser Gly Asp Ala Leu Ser Ser Thr Gly Leu His Gly Gln Gly  
                   45                  50                  55  
 ttg tgg gtc ctg gtg aag gaa gtg cat cct cag gcc tgg gct gta gca 362  
 Leu Trp Val Leu Val Lys Glu Val His Pro Gln Ala Trp Ala Val Ala  
                   60                  65                  70                  75  
 agc tgt ctg ccc ttg ggt tca aga acc aga ctg tgg agc 401  
 Ser Cys Leu Pro Leu Gly Ser Arg Thr Arg Leu Trp Ser  
                   80                  85

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 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 39..239

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                                   1                  5  
 att gaa tct ttc ctt tcc ctg atg aag aca gct ggt ggg csa agt gcg 104



004220"666E7560

Ile	Glu	Ser	Phe	Leu	Ser	Leu	Met	Lys	Thr	Ala	Gly	Gly	Xaa	Ser	Ala	
			10					15					20			
gca	aag	aag	cca	gaa	gga	acc	aga	atc	cca	gtg	ccc	tac	acc	cac	cac	152
Ala	Lys	Lys	Pro	Glu	Gly	Thr	Arg	Ile	Pro	Val	Pro	Tyr	Thr	His	His	
		25					30					35				
cag	aca	cac	tca	cac	cca	cac	acg	ttc	tca	gac	aca	cac	aag	agt	gct	200
Gln	Thr	His	Ser	His	Pro	His	Thr	Phe	Ser	Asp	Thr	His	Lys	Ser	Ala	
	40					45					50					
tgc	cgg	tta	tac	caa	acc	cta	cta	tta	ctg	cct	gca	aaa				239
Cys	Arg	Leu	Tyr	Gln	Thr	Leu	Leu	Leu	Leu	Pro	Ala	Lys				
55					60					65						

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caaagggcta	atatccagaa	tctacaaaga	actccaacaa	atttacaaga	aaagaacaaa		180								
caaccccatc	aaaaagtggg	caaaggat	atg aac aga	cac ttc tca	aaa gaa		232								
			Met Asn Arg	His Phe Ser	Lys Glu										
			1		5										
gat att tat	gca gcc aac	aga cac aca	ara aaa tgc	tca tca tca	ctg		280								
Asp Ile Tyr	Ala Ala Asn	Arg His Thr	Xaa Lys Cys	Ser Ser Ser	Leu										
	10		15		20										
gcc atc aga	gaa atg caa	atc arr acc	aca atg aga	tac cat ctc	aca		328								
Ala Ile Arg	Glu Met Gln	Ile Xaa Thr	Thr Met Arg	Tyr His Leu	Thr										
	25		30		35		40								
cca gtt aga	atg gcg atc	att aaa aag	tca gga rac	aac agg tgc	tgg		376								
Pro Val Arg	Met Ala Ile	Ile Lys Lys	Ser Gly Xaa	Asn Arg Cys	Trp										
		45		50			55								
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Arg Gly Cys	Gly														
	60														

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 gccaaagctga agaagaacga atacggaagc acaaagcagc tgctgagaaa gctttccagg 180  
 aagggtattgc caaggccaaa ctagtc atg cgc agg act cct att ggc aca gat 233

Met Arg Arg Thr Pro Ile Gly Thr Asp

1 5  
 cga aac cat aat aga tac tgg ctc ttc tca gat gaa gtt cca gga tta 281  
 Arg Asn His Asn Arg Tyr Trp Leu Phe Ser Asp Glu Val Pro Gly Leu  
 10 15 20 25

ttc att gaa aaa ggc tgg gta cat gac agc att gac tac cga ttc aac 329  
 Phe Ile Glu Lys Gly Trp Val His Asp Ser Ile Asp Tyr Arg Phe Asn  
 30 35 40

cat cac tgc aaa gac cac aca gtc tct ggt gat gag gat tac tgt cct 377  
 His His Cys Lys Asp His Thr Val Ser Gly Asp Glu Asp Tyr Cys Pro  
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cgc agt aag a 387  
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 <212> DNA  
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<220>  
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 ccagcctcct tctctcagc tcctcaggaa cgactgggga agctgtggct tc atg gtc 178  
 Met Val

1  
 ccc gag gct gcc cga gga aag gta ttt cag gac agc cag gag ggg gcg 226  
 Pro Glu Ala Ala Arg Gly Lys Val Phe Gln Asp Ser Gln Glu Gly Ala  
 5 10 15

cac atc cgc cga gaa act gtg agc aag agc gtc tgt gct gra cca tgg 274  
 His Ile Arg Arg Glu Thr Val Ser Lys Ser Val Cys Ala Xaa Pro Trp  
 20 25 30

cgc cac cag agg tcg cgc gat ccc gcc cca acc aac ttc ccg ctg aag 322  
 Arg His Gln Arg Ser Arg Asp Pro Ala Pro Thr Asn Phe Pro Leu Lys  
 35 40 45 50

tgc cag aag cag cga gga gct tca act tcc tca ggg cag cac ggg ggt 370  
 Cys Gln Lys Gln Arg Gly Ala Ser Thr Ser Ser Gly Gln His Gly Gly  
 55 60 65

cgt gtt aat ttg gtg ttc ttc att 394  
 Arg Val Asn Leu Val Phe Phe Ile  
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<210> 3106  
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 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 208..390

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 aaagggctaa tatccagaat ctacaaagaa ctccaacaaa tttacaagaa aagaacaaac 180  
 aaccccatca aaaagtgggc aaaggat atg aac aga cac ttc tca aaa gaa gat 234  
 Met Asn Arg His Phe Ser Lys Glu Asp  
 1 5  
 att tat gca gcc aac aga cac aca aaa aaa tgc tca tca tca ctg gcc 282  
 Ile Tyr Ala Ala Asn Arg His Thr Lys Lys Cys Ser Ser Ser Leu Ala  
 10 15 20 25  
 atc aga gaa atg caa atc aaa acc aca atg aga tac cat ctc aca cca 330  
 Ile Arg Glu Met Gln Ile Lys Thr Thr Met Arg Tyr His Leu Thr Pro  
 30 35 40  
 gtt aga atg gcg atc att aam aag tca ggc aac aac agg tgc tgg aga 378  
 Val Arg Met Ala Ile Ile Xaa Lys Ser Gly Asn Asn Arg Cys Trp Arg  
 45 50 55  
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<220>  
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 Met Thr Pro Tyr Leu Asn Thr Ser  
 1 5  
 aac aga gaa gta aag gta tac gtt tgt aaa tct gga aga ctg act gct 160  
 Asn Arg Glu Val Lys Val Tyr Val Cys Lys Ser Gly Arg Leu Thr Ala  
 10 15 20  
 att cca ttt tgg tat cat atg tac ctt gat gaa gag att agg ttg gat 208  
 Ile Pro Phe Trp Tyr His Met Tyr Leu Asp Glu Glu Ile Arg Leu Asp  
 25 30 35 40  
 act tca agt gaa gcc tcc cac tgg aaa caa gct gca gtt gtt tta gat 256  
 Thr Ser Ser Glu Ala Ser His Trp Lys Gln Ala Ala Val Val Leu Asp  
 45 50 55  
 aat ccc atc cag gtt gaa atg gga gag gaa ctt gta ctc agc att cag 304  
 Asn Pro Ile Gln Val Glu Met Gly Glu Glu Leu Val Leu Ser Ile Gln  
 60 65 70  
 cat cac aaa agc aat gtc agc atc act 331

His His Lys Ser Asn Val Ser Ile Thr  
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Glu Gly Phe Phe Asn Leu Leu Ser His Val Xaa Gly Asp Arg Met Glu  
10 15 20  
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Gly Gln Arg Cys Ser Leu Gln Ala Gly Pro Gly Gln Thr Thr Lys Ser  
25 30 35  
cag agc gac ccc acc ccc gag atg gac agc ctc atg gac atg ctg gcc 198  
Gln Ser Asp Pro Thr Pro Glu Met Asp Ser Leu Met Asp Met Leu Ala  
40 45 50 55  
agt acc cag ggc cgc cgc atg gat gac caa cgt gtg aca gtc agc agc 246  
Ser Thr Gln Gly Arg Arg Met Asp Asp Gln Arg Val Thr Val Ser Ser  
60 65 70  
ctg ccc ggc ttc cag ccc gtg ggg tcc aag gac gga gca cag aaa cga 294  
Leu Pro Gly Phe Gln Pro Val Gly Ser Lys Asp Gly Ala Gln Lys Arg  
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Ala Gly

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<212> DNA  
<213> Homo sapiens

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<222> 160..354

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cttgattttt cctatctcct tctcgtatc tctccacct atg ctt tcc tgc ccc 174  
Met Leu Ser Cys Pro  
1 5  
cat cct gtg ctt tca atc cta rtc cct cct gac ttc tct aga gcc tta 222  
His Pro Val Leu Ser Ile Leu Xaa Pro Pro Asp Phe Ser Arg Ala Leu  
10 15 20

ctt ggt caa tta cgc att att ttt caa aac gtc act ctt tcg tgt tct	270
Leu Gly Gln Leu Arg Ile Ile Phe Gln Asn Val Thr Leu Ser Cys Ser	
25 30 35	
ggt gcc tcc ttc tcg ccc tat aaa ggt ggt tta aat ctt cct gag ttc	318
Val Ala Ser Phe Ser Pro Tyr Lys Gly Gly Leu Asn Leu Pro Glu Phe	
40 45 50	
acc tca cmc tgc ttc tcc ctc agt ctc act gta cct	354
Thr Ser Xaa Cys Phe Ser Leu Ser Leu Thr Val Pro	
55 60 65	

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Met Val Ala Glu Leu Ala Gly Gln Gln Asp Pro Gly Leu Gly Ala	
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ttt tcc tgt cag gag gcc cgg aga gcc tgg ctg gat cgt cat ggc aac	98
Phe Ser Cys Gln Glu Ala Arg Arg Ala Trp Leu Asp Arg His Gly Asn	
20 25 30	
ctt gat gaa gct gtg gag gag tgt gtg agg acc agg cga agg aag gtg	146
Leu Asp Glu Ala Val Glu Glu Cys Val Arg Thr Arg Arg Arg Lys Val	
35 40 45	
cag gag ctc cag tct cta ggc ttt ggg cct gag gag ggg tct ctc cag	194
Gln Glu Leu Gln Ser Leu Gly Phe Gly Pro Glu Glu Gly Ser Leu Gln	
50 55 60	
gca ttg ttc cag cac gga ggt gat gtg tca cgg gcc ctg act cac	239
Ala Leu Phe Gln His Gly Gly Asp Val Ser Arg Ala Leu Thr His	
65 70 75	

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gtcagagtga acaggcaacc tatagaatkg ggagncaatt tttacaatct acttatctga	120
caaagggtca atatccagaa tctacaaaga actccaacaa atttacaaga aaagaacaaa	180
caaccccatc aaaaagtggg caaaggat atg aac aga cac ttc tca aaa gaa	232
Met Asn Arg His Phe Ser Lys Glu	
1 5	

gat att tat gca gcc aac aga cac aca aaa aaa tgc tca tca tca ctg	280
Asp Ile Tyr Ala Ala Asn Arg His Thr Lys Lys Cys Ser Ser Ser Leu	
10 15 20	
gcc atc aga gaa atg caa atc aaa acc aca atg aga tac cat ctc aca	328
Ala Ile Arg Glu Met Gln Ile Lys Thr Thr Met Arg Tyr His Leu Thr	
25 30 35 40	
cca gtt aga atg gcg atc att aaa aag tca gga aca	364
Pro Val Arg Met Ala Ile Ile Lys Lys Ser Gly Thr	
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tgatcatcttc aaggactttg tgaataaata cacggacctg gattcagaac ttaagatc	118
atg tgc acc gtg gac cac cag gac caa aga gat tgg atc aag gac cga	166
Met Cys Thr Val Asp His Gln Asp Gln Arg Asp Trp Ile Lys Asp Arg	
1 5 10 15	
gtc gaa cag atc aag gaa tac cat cac ctg cac cag gct gtc cac gca	214
Val Glu Gln Ile Lys Glu Tyr His His Leu His Gln Ala Val His Ala	
20 25 30	
gcc aag gtc atc ttg cag gtc aaa gag agc ctg gga ctg aac ggt gac	262
Ala Lys Val Ile Leu Gln Val Lys Glu Ser Leu Gly Leu Asn Gly Asp	
35 40 45	
ttc agt gtt ctc aac act tta cta aat ttt act gat aac ttc gac gac	310
Phe Ser Val Leu Asn Thr Leu Leu Asn Phe Thr Asp Asn Phe Asp Asp	
50 55 60	
ttt cgc cgt gaa aca ctg gac cag gcc	337
Phe Arg Arg Glu Thr Leu Asp Gln Ala	
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aaagggtctaa tatccagaat ctacaaagaa ctccaacaaa tttacaagaa aagaacaaac	180
aaccccatca aaaagtgggc aaaggat atg aac aga cac ttc tca aaa gaa gat	234

	Met	Asn	Arg	His	Phe	Ser	Lys	Glu	Asp	
	1				5					
att tat gca gcc aac aga cac aca aaa aaa tgc tca tca ctg gcc										282
Ile Tyr Ala Ala Asn Arg His Thr Lys Lys Cys Ser Ser Ser Leu Ala										
10	15			20				25		
atc aga gaa atg cma atc vaa acc aca atg aga tac cat ctc aca cca										330
Ile Arg Glu Met Xaa Ile Xaa Thr Thr Met Arg Tyr His Leu Thr Pro										
	30			35				40		
gtt aga atg gsg atc att aaa aag tca ggr arc aac agg tgc										372
Val Arg Met Xaa Ile Ile Lys Lys Ser Gly Xaa Asn Arg Cys										
	45			50				55		

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<220>  
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	1			5					
tgt tta gag tgt ata act aag aat gga ttg cta ggt tta aag gtg ctt									102
Cys Leu Glu Cys Ile Thr Lys Asn Gly Leu Leu Gly Leu Lys Val Leu									
10	15			20					
cca ctc tat ggg ata atg cta att ttt ttc cct aaa gtg gtt tat aac									150
Pro Leu Tyr Gly Ile Met Leu Ile Phe Phe Pro Lys Val Val Tyr Asn									
25	30			35				40	
aat caa ccc ttg cac tac aag tca gta atg gtg ttt cag ttg act tca									198
Asn Gln Pro Leu His Tyr Lys Ser Val Met Val Phe Gln Leu Thr Ser									
	45			50				55	
ttc ttg tcg att tka att ttt gtc aac ccc act c									232
Phe Leu Ser Ile Xaa Ile Phe Val Asn Pro Thr									
	60			65					

<210> 3115  
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<220>  
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cacaatatct gcaaaaacaa acaaacaaac aaacacttag gaatatatct aatcaaggat												60
gtgaaagacc tctacaagga aaactacgaa acactgctga aagaaatcat agatgacaca												120
aacaaataga aacatatccc atg ctc atg gat ggg gag aat caa tat tgt gaa												173

					1					5					10		
aat	gac	cac	act	gcc	aaa	agc	aat	cta	caa	agt	cag	tgc	aat	tcc	cat		221
Asn	Asp	His	Thr	Ala	Lys	Ser	Asn	Leu	Gln	Ser	Gln	Cys	Asn	Ser	His		
			15					20				25					
caa	gat	agc	acc	atc	att	ctt	ctc	aga	act	agc	aaa	aac	aat	cct	aaa		269
Gln	Asp	Ser	Thr	Ile	Ile	Leu	Leu	Arg	Thr	Ser	Lys	Asn	Asn	Pro	Lys		
			30				35					40					
att	tac	atg	gaa	cca	aaa	aag	agc	ccc	aac								299
Ile	Tyr	Met	Glu	Pro	Lys	Lys	Ser	Pro	Asn								
	45					50											

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<220>  
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 <222> 208..438

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 gtcagagtga acaggcaacc tatagaatkg gagacaattt ttacaatcta cttatctgac 120  
 aaagggctaa tatccagaat ctacaaagaa ctccaacaaa tttacaagaa aagaacaaac 180  
 aaccccatca aaaagtgggc aaaggat atg aac aga cac ttc tca aaa gaa gat 234  
 Met Asn Arg His Phe Ser Lys Glu Asp

					1					5							
att	tat	gca	gcc	aac	aga	cac	aca	aaa	aaa	tgc	tca	tca	tca	ctg	gcc		282
Ile	Tyr	Ala	Ala	Asn	Arg	His	Thr	Lys	Lys	Cys	Ser	Ser	Ser	Leu	Ala		
	10			15				20		25							
atc	aga	gaa	atg	caa	atc	aaa	acc	aca	atg	aga	tac	cat	ctc	aca	cca		330
Ile	Arg	Glu	Met	Gln	Ile	Lys	Thr	Thr	Met	Arg	Tyr	His	Leu	Thr	Pro		
			30				35					40					
gtt	aga	atg	gcg	atc	att	aaa	aag	tca	ggr	aac	aac	agg	tgc	tgg	aga		378
Val	Arg	Met	Ala	Ile	Ile	Lys	Lys	Ser	Gly	Asn	Asn	Arg	Cys	Trp	Arg		
		45				50					55						
gga	tgt	gga	gaa	ata	gaa	aca	ctt	tta	cac	tgt	tgg	ggg	gct	gta	act		426
Gly	Cys	Gly	Glu	Ile	Glu	Thr	Leu	Leu	His	Cys	Trp	Gly	Ala	Val	Thr		
		60				65					70						
agt	tca	atc	att	gt													440
Ser	Ser	Ile	Ile														
		75															

<210> 3117  
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<220>  
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 <222> 62..355

0044220 6664560



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 t atg cag agg act ggg atg aac aca gta tca gct aga gag aag tta tct 109  
 Met Gln Arg Thr Gly Met Asn Thr Val Ser Ala Arg Glu Lys Leu Ser  
 1 5 10 15  
 gct ttt gtt agg aag ttt cca ttt tgg caa aaa cga att gag aaa aga 157  
 Ala Phe Val Arg Lys Phe Pro Phe Trp Gln Lys Arg Ile Glu Lys Arg  
 20 25 30  
 aat ttt acc aat ttt cct ttt ctt gaa gaa ata att gtt tca gat aat 205  
 Asn Phe Thr Asn Phe Pro Phe Leu Glu Glu Ile Ile Val Ser Asp Asn  
 35 40 45  
 gaa ggc ata ttc att gca gct gaa ata aca ctg cat ctg caa caa ttg 253  
 Glu Gly Ile Phe Ile Ala Ala Glu Ile Thr Leu His Leu Gln Gln Leu  
 50 55 60  
 agc aac ttc ttc cat gga tat ttt tcc att gga gat ctt aat gag gca 301  
 Ser Asn Phe Phe His Gly Tyr Phe Ser Ile Gly Asp Leu Asn Glu Ala  
 65 70 75 80  
 agt aaa tgg ata ttg gat cca ttt ctt ttt aat atc gat ttt gtt gat 349  
 Ser Lys Trp Ile Leu Asp Pro Phe Leu Phe Asn Ile Asp Phe Val Asp  
 85 90 95  
 gat agt ta 357  
 Asp Ser

&lt;210&gt; 3118

&lt;211&gt; 356

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 87..356

&lt;400&gt; 3118

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 gtcagagtga acaggcaacc tataga atg gga gac awt ttt aca atc kac tta 113  
 Met Gly Asp Xaa Phe Thr Ile Xaa Leu  
 1 5  
 tct grc aaa ggg cta ata tcc aga atc tac aaa gaa ctc saa caa att 161  
 Ser Xaa Lys Gly Leu Ile Ser Arg Ile Tyr Lys Glu Leu Xaa Gln Ile  
 10 15 20 25  
 tac aag aaa agr aca aac aac ccc atc aaa aag tgg gca aag gat atg 209  
 Tyr Lys Lys Arg Thr Asn Asn Pro Ile Lys Lys Trp Ala Lys Asp Met  
 30 35 40  
 aac aga cac ttc tca aaa gaa gat att tat gca gcc aac aga cac aca 257  
 Asn Arg His Phe Ser Lys Glu Asp Ile Tyr Ala Ala Asn Arg His Thr  
 45 50 55  
 aaa aaa tgc tca tca tca ctg gcc atc aga gav atg caa atc raa rcc 305  
 Lys Lys Cys Ser Ser Ser Leu Ala Ile Arg Xaa Met Gln Ile Xaa Xaa  
 60 65 70  
 aca atg aga tac cat ctc aca cca gtt aga atg gcg atc att aaa aag 353  
 Thr Met Arg Tyr His Leu Thr Pro Val Arg Met Ala Ile Ile Lys Lys  
 75 80 85  
 tca 356

Ser  
90

<210> 3119  
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<212> DNA  
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<220>  
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<222> 134..346

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aaatctggca aatctacttc ccatacaacc cagacatttc acctccatgt aattacccaa 120  
gagaaataaa aat atg tcc acg tgt aca cca atg ttt aca gca gcc tct 169  
Met Ser Thr Cys Thr Pro Met Phe Thr Ala Ala Ser  
1 5 10  
ctt tct ctc tct ttc ttt att tct ccc ttc ctt cct tcc ttc ctt tca 217  
Leu Ser Leu Ser Phe Phe Ile Ser Pro Phe Leu Pro Ser Phe Leu Ser  
15 20 25  
cag act ccc act ctg ttg ccc agg ctg rag tgc agt gct gtg att tcc 265  
Gln Thr Pro Thr Leu Leu Pro Arg Leu Xaa Cys Ser Ala Val Ile Ser  
30 35 40  
ggc cgc tgc aac ctc cgc ttc cca ggt tca ggt gat tct cat gcc tca 313  
Gly Arg Cys Asn Leu Arg Phe Pro Gly Ser Gly Asp Ser His Ala Ser  
45 50 55 60  
gct tcc caa gaa gct ggg att acg gac gcg ccc c 347  
Ala Ser Gln Glu Ala Gly Ile Thr Asp Ala Pro  
65 70

<210> 3120  
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<212> DNA  
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<220>  
<221> CDS  
<222> 209..376

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gtcagagtga acaggcaacc tatagwawtg gghgmcaatt tttacaatct acttatctga 120  
caaagggcta atatccagaa tctacaaaga actccaacaa atttacaaga aaagaacaaa 180  
caaccccatc aaaaagtggg caaaggat atg aac aga cac ttc tca aaa gaa 232  
Met Asn Arg His Phe Ser Lys Glu  
1 5  
gat att tat gca gcc aac aga cac aca aaa aaa tgc tca tca tca ctg 280  
Asp Ile Tyr Ala Ala Asn Arg His Thr Lys Lys Cys Ser Ser Ser Leu  
10 15 20  
gcc atc aga gaa atg car atc aaa acc aca atg aga tac cat ctc aca 328  
Ala Ile Arg Glu Met Gln Ile Lys Thr Thr Met Arg Tyr His Leu Thr



Tyr	Tyr	Phe	Leu	Thr	Leu	Gln	Gln	Tyr	Val	Tyr	Lys	Phe	Val	Val	Tyr	
35					40					45						
cta	gcc	gtg	gag	ttt	ccc	aag	aac	aga	cac	tgt	cat	ttt	ata	ggg	gca	308
Leu	Ala	Val	Glu	Phe	Pro	Lys	Asn	Arg	His	Cys	His	Phe	Ile	Gly	Ala	
50				55					60			65				
caa	ggc	cag	ctt	gaa	ttr	ata	atc	ata	cct	aac	ttt	aag	ata	tca	gtg	356
Gln	Gly	Gln	Leu	Glu	Leu	Ile	Ile	Ile	Pro	Asn	Phe	Lys	Ile	Ser	Val	
			70					75					80			
gaa	aac															362
Glu	Asn															

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aaagggctaa	tatccagaat	ctacaaagaa	ctccaacaaa	tttacaagaa	aagaacaaac		180										
aaccccatca	aaaagtgggc	aaaggat	atg aac	aga cac	ttc tca	aaa gaa	gat		234								
			Met Asn	Arg His	Phe Ser	Lys Glu	Asp										
			1		5												
att tat	gca gcc	aac aga	cac aca	aaa aaa	tgc tca	tca tca	ctg gcc		282								
Ile Tyr	Ala Ala	Asn Arg	His Thr	Lys Lys	Cys Ser	Ser Ser	Leu Ala										
10		15		20		25											
atc aga	gaa atg	caa atc	aaa acc	aca atg	aga tac	cat ctc	aca cca		330								
Ile Arg	Glu Met	Gln Ile	Lys Thr	Thr Met	Arg Tyr	His Leu	Thr Pro										
	30		35		40												
gtt aga	atg gcg	atc att	aaa aag	tca gga	aac aac	agg tgc	tgg aga		378								
Val Arg	Met Ala	Ile Ile	Lys Lys	Ser Gly	Asn Asn	Arg Cys	Trp Arg										
	45		50		55												
gga tgt	gga gaa	ata gaa	rca ctt	tta cac	tgt tkn	rgg gac	tgt aaa		426								
Gly Cys	Gly Glu	Ile Glu	Xaa Leu	Leu His	Cys Xaa	Xaa Asp	Cys Lys										
	60		65		70												
cta gtt	caa tca	ttg tgg	aag aca	gtg t					454								
Leu Val	Gln Ser	Leu Trp	Lys Thr	Val													
	75		80														

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<220>  
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<400> 3124

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Glu Glu Arg Leu Ala Arg Gly Gly Lys Glu Asn Asn Ser Val Leu Asp
                        10           15           20
agg gtc tcg cac tgt cac cca ggc tgg agt gca gtg gtg caa ccc cac      150
Arg Val Ser His Cys His Pro Gly Trp Ser Ala Val Val Gln Pro His
                        25           30           35
ctc ccg ggt tca agc aat tct cat gcc tca gcc tcc caa gta gct ggg      198
Leu Pro Gly Ser Ser Asn Ser His Ala Ser Ala Ser Gln Val Ala Gly
40           45           50           55
att aca ggg tcc tcc tac cgc aga gta tct tgc agt cca act ccc acg      246
Ile Thr Gly Ser Ser Tyr Arg Arg Val Ser Cys Ser Pro Thr Pro Thr
                        60           65           70
att gtm mtg act ggg gat gcc act tca cca gaa gga gaa acc grc aaa      294
Ile Val Xaa Thr Gly Asp Ala Thr Ser Pro Glu Gly Glu Thr Xaa Lys
                        75           80           85
aac ctg gcc aac aga gtt cac agt ccc cac aag agg ctt tct cac cgr      342
Asn Leu Ala Asn Arg Val His Ser Pro His Lys Arg Leu Ser His Arg
                        90           95           100
cac whg aag gtg tcc act gcc tcc ctg aca tct gtg gac ccc gc      386
His Xaa Lys Val Ser Thr Ala Ser Leu Thr Ser Val Asp Pro
105           110           115

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<210> 3125

<211> 302

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 83..301

<400> 3125

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                        Met Leu Phe Phe Thr Gln Cys Phe Gly Ala
                        1           5           10
gta tta gat ctc att cat ctc cgg ttt cag cac tac aag gct aaa cgg      160
Val Leu Asp Leu Ile His Leu Arg Phe Gln His Tyr Lys Ala Lys Arg
                        15           20           25
gtt ttc tcc gct gcc ggg caa ctt gtc tgt gtc gtc aac ccc aca cac      208
Val Phe Ser Ala Ala Gly Gln Leu Val Cys Val Val Asn Pro Thr His
                        30           35           40
aac cta aag tat gtg tcc agt cgg cgc gcc gtc act cag agc gct cca      256
Asn Leu Lys Tyr Val Ser Ser Arg Arg Ala Val Thr Gln Ser Ala Pro
                        45           50           55
gag caa ggc agc ttc cac cct cac cat ctc tcc cac cac cac agg n      302
Glu Gln Gly Ser Phe His Pro His His Leu Ser His His His Arg
60           65           70

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aaa cag gaa ccc aca tgg aaa acg aaa ata gca gat cgg tta aaa ctg 213  
 Lys Gln Glu Pro Thr Trp Lys Thr Lys Ile Ala Asp Arg Leu Lys Leu  
 20 25 30 35  
 aga ccc aga gcc cct gcg gat gac atg ttt gga gta ggg aat cac aaa 261  
 Arg Pro Arg Ala Pro Ala Asp Asp Met Phe Gly Val Gly Asn His Lys  
 40 45 50  
 gtg aat gcc gag act gct aaa agg aaa agc atc cgg cac ac 302  
 Val Asn Ala Glu Thr Ala Lys Arg Lys Ser Ile Arg His  
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 ggac atg tgg atc cca gtg gtc ggg ctt cct cgg cgg ctg agg ctc tcc 169  
 Met Trp Ile Pro Val Val Gly Leu Pro Arg Arg Leu Arg Leu Ser  
 1 5 10 15  
 gcc ttg gcg ggc gct ggt cgc ttt tgc att tta ggg tct gaa gcg gcg 217  
 Ala Leu Ala Gly Ala Gly Arg Phe Cys Ile Leu Gly Ser Glu Ala Ala  
 20 25 30  
 acg cga aag cat ttg ccg gcg agg aac cac tgt ggg ctc tct gam tcc 265  
 Thr Arg Lys His Leu Pro Ala Arg Asn His Cys Gly Leu Ser Xaa Ser  
 35 40 45  
 tct ccg cag ctg tgg ccc gaa ccg gat ttc agg aat ccg cca agg aag 313  
 Ser Pro Gln Leu Trp Pro Glu Pro Asp Phe Arg Asn Pro Pro Arg Lys  
 50 55 60  
 gcg tct aag gcc agc tta gac ttt aag cgt tac gtr ncc gat cgg aga 361  
 Ala Ser Lys Ala Ser Leu Asp Phe Lys Arg Tyr Val Xaa Asp Arg Arg  
 65 70 75  
 ttg gct gag acc tgg c 377  
 Leu Ala Glu Thr Trp  
 80

<210> 3129  
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 <212> DNA  
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<220>  
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 <222> 151..483

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 agctgtgccg cgctgcacgg tgagtaagag atg gac cgc ttc ctg ggt ttt gtc 174

Met Asp Arg Phe Leu Gly Phe Val

1

5

aag gcg ata aga aga tct agg aga aga aag ggg aaa aag tac cga cca 222  
 Lys Ala Ile Arg Arg Ser Arg Arg Arg Lys Gly Lys Lys Tyr Arg Pro

10

15

20

gaa gag gat tac cac gag ggc tat gag gat gtc tat tat tac gct tca 270  
 Glu Glu Asp Tyr His Glu Gly Tyr Glu Asp Val Tyr Tyr Tyr Ala Ser

25

30

35

40

gag cat ttt cga aat gag agt ccc tac act aaa tcc gcc agn hag aca 318  
 Glu His Phe Arg Asn Glu Ser Pro Tyr Thr Lys Ser Ala Xaa Xaa Thr

45

50

55

aag ccg cct gat gga gcg ttg gct gtg agg aga cag ags atc cca gag 366  
 Lys Pro Pro Asp Gly Ala Leu Ala Val Arg Arg Gln Xaa Ile Pro Glu

60

65

70

gaa ttc aag ggc tcc aca gtc gtc gag ctg atg aag aag gaa ggc act 414  
 Glu Phe Lys Gly Ser Thr Val Val Glu Leu Met Lys Lys Glu Gly Thr

75

80

85

acc ctg ggt ctg acg gta tcg gga gga att gat aag gmt ggc aag cca 462  
 Thr Leu Gly Leu Thr Val Ser Gly Gly Ile Asp Lys Xaa Gly Lys Pro

90

95

100

aga gta tct aat ctg cgg caa 483  
 Arg Val Ser Asn Leu Arg Gln

105

110

<210> 3130

<211> 507

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 283..507

<400> 3130

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 acaggcctct ccatctgccc agcacccac cacctgcagt ccacctcccc gtaagccatg 120

cttgccctccc agccccaacc acatttgggg agtttgggga atccagttca tctctactt 180

ttgggggcag ccagccaagc ccaactgcaag agctgaccgg caccctcca ctttgtctc 240

cacccagtg acctgacggt gaagttctgg agtgtccggc gg atg ggg cca gct 294

Met Gly Pro Ala

1

gct ctg ggg aca gag ggc gtg gcc ccc tct cct gcc ctc ctc cct ctc 342  
 Ala Leu Gly Thr Glu Gly Val Ala Pro Ser Pro Ala Leu Leu Pro Leu

5

10

15

20

cct hrg cct tcc cac agg aca ctg ttc cct cat ccc tcc cct gcc tct 390  
 Pro Xaa Pro Ser His Arg Thr Leu Phe Pro His Pro Ser Pro Ala Ser

25

30

35

cag gag cct ctg ggt gna gag aka ggc tgg gsm agg aaa tta agc tgt 438  
 Gln Glu Pro Leu Gly Xaa Glu Xaa Gly Trp Xaa Arg Lys Leu Ser Cys

40

45

50

gaa gcc aaa ggg cat tat ccc ttc ttg ttc ccc tcc tgg cag tcg tgg 486



Glu Ala Lys Gly His Tyr Pro Phe Leu Phe Pro Ser Trp Gln Ser Trp  
 55 60 65  
 cca cat tgt ctc ntg ctg aac  
 Pro His Cys Leu Xaa Leu Asn  
 70 75

507

<210> 3131  
 <211> 316  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 91..315

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 tgcttgccagc tcaacgccag gagtttcctg atg ggt cag ggt ggg gag gct gca 114  
 Met Gly Gln Gly Gly Glu Ala Ala  
 1 5  
 cac cac aca agg tca ccc tac tct acc ttc tac cca ccc tac cac agc 162  
 His His Thr Arg Ser Pro Tyr Ser Thr Phe Tyr Pro Pro Tyr His Ser  
 10 15 20  
 cct gag ctc acc act ccc cca ggg cat ggg act ctt gat aat tcc aag 210  
 Pro Glu Leu Thr Thr Pro Gly His Gly Thr Leu Asp Asn Ser Lys  
 25 30 35 40  
 tcc atg aaa ccc tac aat tat tgc agt gcg tat gaa tcc ttc tat gaa 258  
 Ser Met Lys Pro Tyr Asn Tyr Cys Ser Ala Tyr Glu Ser Phe Tyr Glu  
 45 50 55  
 agt act tcc cct gag tgt gcc agc cct cag ttt gaa ggt ccc tta agt 306  
 Ser Thr Ser Pro Glu Cys Ala Ser Pro Gln Phe Glu Gly Pro Leu Ser  
 60 65 70  
 cct ccc ccg a 316  
 Pro Pro Pro  
 75

<210> 3132  
 <211> 217  
 <212> DNA  
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<220>  
 <221> CDS  
 <222> 28..216

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 agcatttaag gaaaaacata gacgccc atg ttt gtg att gat tta gga att ttc 54  
 Met Phe Val Ile Asp Leu Gly Ile Phe  
 1 5  
 aag aga aat ttt gaa gga att aga ttt tgc cat aca tgs tgg gct tta 102  
 Lys Arg Asn Phe Glu Gly Ile Arg Phe Cys His Thr Xaa Trp Ala Leu  
 10 15 20 25

aat gtt aaa tct cag gat gag att cca ctt cta ctt agt ggc cct tgc 150  
 Asn Val Lys Ser Gln Asp Glu Ile Pro Leu Leu Leu Ser Gly Pro Cys  
                   30                  35                  40  
 ggg ggt tgg ccc ttg tgg gag ttg gtg gat ttt ctg gtt aag agt tta 198  
 Gly Gly Trp Pro Leu Trp Glu Leu Val Asp Phe Leu Val Lys Ser Leu  
                   45                  50                  55  
 gtt tgt ttc ctc ccc ccc t 217  
 Val Cys Phe Leu Pro Pro  
                   60

<210> 3133  
 <211> 364  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 129..362

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 gttatgtagt aacgagttct ggattattgc ttctgtgct gctacctcg ctctaccac 120  
 cgctgttt atg ctt tat gct ttg gat aat gat cgc gag gaa gac att tac 170  
           Met Leu Tyr Ala Leu Asp Asn Asp Arg Glu Glu Asp Ile Tyr  
                   1                  5                  10  
 tgg gaa tgt gtc ctt cga cta aat aag cag cca gat att gct ctc ctg 218  
 Trp Glu Cys Val Leu Arg Leu Asn Lys Gln Pro Asp Ile Ala Leu Leu  
                   15                  20                  25                  30  
 ggc ttt ctt ggg gtg cag agg aaa ttt tgg cca gca acc ttg tca atc 266  
 Gly Phe Leu Gly Val Gln Arg Lys Phe Trp Pro Ala Thr Leu Ser Ile  
                   35                  40                  45  
 ctt gga gag agt aaa aag gtt ttg cca acc acg aaa gat gct tgt ttt 314  
 Leu Gly Glu Ser Lys Lys Val Leu Pro Thr Thr Lys Asp Ala Cys Phe  
                   50                  55                  60  
 gcc tca gca gta gaa tgt ctg cag cag atc agc aca aca ttt acc cca 362  
 Ala Ser Ala Val Glu Cys Leu Gln Gln Ile Ser Thr Thr Phe Thr Pro  
                   65                  70                  75  
 ac 364

<210> 3134  
 <211> 266  
 <212> DNA  
 <213> Homo sapiens

<220>  
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 <222> 16..264

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 caccgcgccg catcc atg ttc gac acc aca ccc cac tct ggc cgg agc asg 51  
           Met Phe Asp Thr Thr Pro His Ser Gly Arg Ser Xaa  
                   1                  5                  10

cca agc agc tcc cca tcg ctc cgg aaa cgg ctg cag ctc ctg ccc cca	99
Pro Ser Ser Ser Pro Ser Leu Arg Lys Arg Leu Gln Leu Leu Pro Pro	
15 20 25	
agm cgg ccc cca cct gag cca gaa cca ggc acc atg gtg gag aag gga	147
Xaa Arg Pro Pro Pro Glu Pro Glu Pro Gly Thr Met Val Glu Lys Gly	
30 35 40	
tca gat agc tcc tca gag aag ggt ggg gtg cct ggg acc ccc agc acc	195
Ser Asp Ser Ser Ser Glu Lys Gly Gly Val Pro Gly Thr Pro Ser Thr	
45 50 55 60	
cag agc cta ggc agc cgg aac ttc atc cgc aac agc aag aag atg cag	243
Gln Ser Leu Gly Ser Arg Asn Phe Ile Arg Asn Ser Lys Lys Met Gln	
65 70 75	
agc tgg tac agt atg ctg agc cc	266
Ser Trp Tyr Ser Met Leu Ser	
80	

<210> 3135  
 <211> 177  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 12..176

<400> 3135	
gacaaaaaca a atg gaa aaa cat tcc atg ctc atg gat agg aag atc aat	50
Met Glu Lys His Ser Met Leu Met Asp Arg Lys Ile Asn	
1 5 10	
atc atg aaa atg gcc ata ctg ccc aaa gta att tat aga ttc aat gct	98
Ile Met Lys Met Ala Ile Leu Pro Lys Val Ile Tyr Arg Phe Asn Ala	
15 20 25	
ata ccc atc aag cta cca ttg act ttc ttc aca gaa tta gaa aaa act	146
Ile Pro Ile Lys Leu Pro Leu Thr Phe Phe Thr Glu Leu Glu Lys Thr	
30 35 40 45	
aaa ttt cat atg gaa cca aaa aag agc gcc t	177
Lys Phe His Met Glu Pro Lys Lys Ser Ala	
50 55	

<210> 3136  
 <211> 275  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 84..275

<400> 3136	
gtggtgtgta gccggcttgg cgtgaccctc gcctgatcca gttgtwagag ttggaagctt	60
ggcagttggc ctcccttctt ccc atg gag gac ggg ggc nka aca gcc ttt gaa	113
Met Glu Asp Gly Gly Xaa Thr Ala Phe Glu	

					1					5					10	
gag	gac	cag	aga	tgc	ctt	tcc	cag	agc	ctc	ccc	ttg	cca	gtg	tca	gca	161
Glu	Asp	Gln	Arg	Cys	Leu	Ser	Gln	Ser	Leu	Pro	Leu	Pro	Val	Ser	Ala	
				15					20					25		
gas	ggc	cca	gct	gca	cag	acc	act	gct	gag	ccc	agc	agg	tcg	ttt	tcc	209
Xaa	Gly	Pro	Ala	Ala	Gln	Thr	Thr	Ala	Glu	Pro	Ser	Arg	Ser	Phe	Ser	
			30					35					40			
tca	gcs	cac	aga	cac	ctg	agc	aga	agg	aat	ggg	ctt	tcc	aga	stc	tgc	257
Ser	Ala	His	Arg	His	Leu	Ser	Arg	Arg	Asn	Gly	Leu	Ser	Arg	Xaa	Cys	
		45					50					55				
cag	agc	agg	aca	gcg	ctc											275
Gln	Ser	Arg	Thr	Ala	Leu											
					60											

<210> 3137  
 <211> 455  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 69..455

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aaaaa	acaaa	cagccccc
atc	aaaaag	tggg
60		
caaaggac	atg gac	aga cac
ttc	tca aaa	gaa gac
att	tat gca	gcc aaa
110		
Met	Asp	Arg
His	Phe	Ser
Lys	Glu	Asp
Ile	Tyr	Ala
Ala	Lys	
1		
5		
10		
aaa	cac	atg
aaa	aaa	tgc
tca	tca	tca
ctg	gcc	atc
aga	gaa	atg
caa		
158		
Lys	His	Met
Lys	Lys	Cys
Ser	Ser	Ser
Leu	Ala	Ile
Arg	Glu	Met
Gln		
15		
20		
25		
30		
atc	aaa	acc
aca	atg	aga
tac	cat	ctc
aca	cca	ggt
aga	atg	gca
atc		
206		
Ile	Lys	Thr
Thr	Met	Arg
Tyr	His	Leu
Thr	Pro	Val
Arg	Met	Ala
Ile		
35		
40		
45		
att	aaa	aag
tca	gga	aac
aac	agg	tgc
tgg	aga	gga
tgt	gga	gaa
ata		
254		
Ile	Lys	Lys
Ser	Gly	Asn
Asn	Arg	Cys
Trp	Arg	Gly
Cys	Gly	Cys
Gly	Glu	Ile
50		
55		
60		
aga	aca	ctt
tta	cac	tgt
tgg	tgg	gac
tgt	aaa	cta
gtt	caa	cca
ttg		
302		
Arg	Thr	Leu
Leu	His	Cys
Trp	Trp	Asp
Cys	Lys	Leu
Val	Gln	Pro
Leu		
65		
70		
75		
tgg	aag	tca
gtg	tgg	caa
ttc	ctc	agg
gat	cta	gaa
cta	gaa	ata
cca		
350		
Trp	Lys	Ser
Val	Trp	Gln
Phe	Leu	Arg
Asp	Leu	Glu
Leu	Glu	Ile
Pro		
80		
85		
90		
ttt	gac	cca
gcc	atc	cca
tta	ctg	ggt
ata	tac	cca
aag	gvc	tat
aaa		
398		
Phe	Asp	Pro
Ala	Ile	Pro
Leu	Leu	Gly
Ile	Tyr	Pro
Lys	Xaa	Tyr
Lys		
95		
100		
105		
110		
tca	tgc	tgc
tat	aaa	gac
aca	tgc	aca
cat	atg	ttt
att	gca	gca
cta		
446		
Ser	Cys	Cys
Tyr	Lys	Asp
Thr	Cys	Thr
His	Met	Phe
Ile	Ala	Ala
Leu		
115		
120		
125		
ttc	aca	ata
Phe	Thr	Ile
455		

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<211> 336  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 84..335

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 aaaaggaataa gtccttgac catgtagatc agcgcccccc actttggcat cccggccggc 60  
 cggggacctc ccagtctgcg gcc atg aac gcg rgc agc gag ggc gas agc ttc 113  
 Met Asn Ala Xaa Ser Glu Gly Xaa Ser Phe  
 1 5 10  
 gcg ggc tcg gtg caa att cca ggt ggc aca acg gtg ctg gtg gag ctg 161  
 Ala Gly Ser Val Gln Ile Pro Gly Gly Thr Thr Val Leu Val Glu Leu  
 15 20 25  
 act ccc gac atc cat atc tgc ggc atc tgc aag cag cag ttt aac aac 209  
 Thr Pro Asp Ile His Ile Cys Gly Ile Cys Lys Gln Gln Phe Asn Asn  
 30 35 40  
 ctg gat gcc ttt gta gct cac aag caa agt ggc tgc cag ctg aca ggc 257  
 Leu Asp Ala Phe Val Ala His Lys Gln Ser Gly Cys Gln Leu Thr Gly  
 45 50 55  
 aca tcc gca gca gcc ccc agc acg gtc cag ttt gta tcg gag gaa aca 305  
 Thr Ser Ala Ala Ala Pro Ser Thr Val Gln Phe Val Ser Glu Glu Thr  
 60 65 70  
 gtg cct gcc acc cag act cag acc acc acc a 336  
 Val Pro Ala Thr Gln Thr Gln Thr Thr Thr  
 75 80

<210> 3139  
 <211> 214  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 7..213

<400> 3139  
 aataat atg gat gaa aat atg gat gag tca gat aaa aga aaa tgt tca 48  
 Met Asp Glu Asn Met Asp Glu Ser Asp Lys Arg Lys Cys Ser  
 1 5 10  
 cga agt cca aaa aaa ata aaa ata gag cct gat tct gaa aaa gat gag 96  
 Arg Ser Pro Lys Lys Ile Lys Ile Glu Pro Asp Ser Glu Lys Asp Glu  
 15 20 25 30  
 gta aaa ggt tca gat gct gca aaa gga gca gac caa aat gaa atg gat 144  
 Val Lys Gly Ser Asp Ala Ala Lys Gly Ala Asp Gln Asn Glu Met Asp  
 35 40 45  
 atc tca aag att act gag aag aag gac caa gat gtg aag gag ctc tta 192  
 Ile Ser Lys Ile Thr Glu Lys Lys Asp Gln Asp Val Lys Glu Leu Leu  
 50 55 60  
 gat tct gac agt gat aaa ccc t 214

Asp Ser Asp Ser Asp Lys Pro  
65

<210> 3140  
<211> 323  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 154..321

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tgctgcaccc atcaacctgt catctacatt gggtatttct cctaattgcta tccctcccct 120  
tgcccccaac ctcccaacag gcaccggtgt gtg atg ttc ccc tcc ctg tgt cca 174  
Met Phe Pro Ser Leu Cys Pro  
1 5  
tat gtt ctc att gtt caa ctt cca ctt atg agt gag aac atg cag tgt 222  
Tyr Val Leu Ile Val Gln Leu Pro Leu Met Ser Glu Asn Met Gln Cys  
10 15 20  
ttg gtt ttc tgt tcc tgt gtt agt ttg ctg aga atg atg gtt tcc agt 270  
Leu Val Phe Cys Ser Cys Val Ser Leu Leu Arg Met Met Val Ser Ser  
25 30 35  
gtc atc cat gat cct gca aag gac atg aac tca tcc ttt ttt atg gct 318  
Val Ile His Asp Pro Ala Lys Asp Met Asn Ser Ser Phe Phe Met Ala  
40 45 50 55  
gct ca 323  
Ala

<210> 3141  
<211> 291  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 101..289

<400> 3141  
ctgctgacac acagttgatg tgtggtgagt atgccttcag cgctccattg tggttctgca 60  
aatttgggaa attttaggtt gtcgtttctc gaaatatttt atg tcc atg ttc tct 115  
Met Ser Met Phe Ser  
1 5  
tcc ccc act tgg act cca gct acg tgt gtt gat gtg gag ctg ggc aca 163  
Ser Pro Thr Trp Thr Pro Ala Thr Cys Val Asp Val Glu Leu Gly Thr  
10 15 20  
gcc ttg gag gcc tcc ttg act ttc ctt tat tcc gga att ttt tct tct 211  
Ala Leu Glu Ala Ser Leu Thr Phe Leu Tyr Ser Gly Ile Phe Ser Ser  
25 30 35  
tct cag aat ggg tca tct cag ttg acc tat ctt caa ggt cac aga tgc 259  
Ser Gln Asn Gly Ser Ser Gln Leu Thr Tyr Leu Gln Gly His Arg Cys



Thr Asp Met Asn Arg His His  
65

<210> 3144  
<211> 250  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 76..249

<400> 3144  
agcaagcagt acataaatga catcaacaac tcaggctgct ccctgacata aaagccagtt 60  
ccatcttttac tgcag atg aca gga gac ttt cca aga cct gca gag gcc ccc 111  
Met Thr Gly Asp Phe Pro Arg Pro Ala Glu Ala Pro  
1 5 10  
tcc acc cca acc tta gtg cat gct cac aca cac aca cac aca 159  
Ser Thr Pro Thr Leu Val His Ala His Thr His Thr His Thr  
15 20 25  
cac aca cac aca ttt ttg gct ttt gac cca ctc tgt gtg tyc cac tgr 207  
His Thr His Thr Phe Leu Ala Phe Asp Pro Leu Cys Val Xaa His Xaa  
30 35 40  
agt tat ctt ttc ctt aat aga ttc aca cag awt tac ccc atc a 250  
Ser Tyr Leu Phe Leu Asn Arg Phe Thr Gln Xaa Tyr Pro Ile  
45 50 55

<210> 3145  
<211> 257  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 78..257

<400> 3145  
gttctctttt tcttggtgct ttattagcaa ctctggatat ttttataaaa ctagttacat 60  
tataaacggt ttcaaac atg ttt aat tta cat tan gvn ttt tat gta aga 110  
Met Phe Asn Leu His Xaa Xaa Phe Tyr Val Arg  
1 5 10  
gtg tca tgg aag cac tca gca agc agg ctg att gca ata gac tca gac 158  
Val Ser Trp Lys His Ser Ala Ser Arg Leu Ile Ala Ile Asp Ser Asp  
15 20 25  
atg cga ata aat gta att gag agt cta ttc atg gtg agg agt aca tcc 206  
Met Arg Ile Asn Val Ile Glu Ser Leu Phe Met Val Arg Ser Thr Ser  
30 35 40  
cag tgc ctt nna cct gga ttt cta atc tta agt gaa atg ggt gca gca 254  
Gln Cys Leu Xaa Pro Gly Phe Leu Ile Leu Ser Glu Met Gly Ala Ala  
45 - 50 55  
tca  
Ser 257



60

<210> 3146  
<211> 223  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 22..222

<400> 3146  
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Met Phe Arg Arg Trp Gly Leu Gln Leu Pro 10  
1 5  
ctg agc tgt agc tgc gta agt acc tcc ttg atg cct gtc ggc act tct 99  
Leu Ser Cys Ser Cys Val Ser Thr Ser Leu Met Pro Val Gly Thr Ser 25  
15 20  
gaa agg cac aag gcc aag aac tcc tgg cca gga ctg caa ggc tct gca 147  
Glu Arg His Lys Ala Lys Asn Ser Trp Pro Gly Leu Gln Gly Ser Ala 40  
30 35  
gcc aat gca gaa aat ggg tca gct cct ttg aga acc cct ccc cac cta 195  
Ala Asn Ala Glu Asn Gly Ser Ala Pro Leu Arg Thr Pro Pro His Leu 55  
45 50  
ccc ctt cct tcc tct tta tct ctc cca c 223  
Pro Leu Pro Ser Ser Leu Ser Leu Pro 60 65

<210> 3147  
<211> 286  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 87..284

<400> 3147  
ccggtttcct ggcgacgcgg ccctgcaggc gggtgcgttc cccgtcggtta ccctctttct 60  
cttcccgcag cgtgagttag gccgta atg cct tgg ctg ctc tca gcc ccc aag 113  
Met Pro Trp Leu Leu Ser Ala Pro Lys 5  
1 5  
ctg gtt ccc gct gta gca aac gtc cgc ggc ctc tca gga tgt atg ttg 161  
Leu Val Pro Ala Val Ala Asn Val Arg Gly Leu Ser Gly Cys Met Leu 25  
10 15 20  
tgt tca cag cga agg tac tcc ctt cag cct gtc cca gaa agg agg att 209  
Cys Ser Gln Arg Arg Tyr Ser Leu Gln Pro Val Pro Glu Arg Arg Ile 40  
30 35  
cca aac cga tac tta ggc cag ccc agc ccc ttt aca cac cca cac ctc 257  
Pro Asn Arg Tyr Leu Gly Gln Pro Ser Pro Phe Thr His Pro His Leu 55  
45 50  
ctc aga cca ggg gag gta act cca gga cc 286

Leu Arg Pro Gly Glu Val Thr Pro Gly  
60 65

<210> 3148  
<211> 168  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 2..166

<400> 3148  
a atg gaa gga tcc gag cct gtg gcc gcc cat cag ggg gaa gag gcg tcc 49  
Met Glu Gly Ser Glu Pro Val Ala Ala His Gln Gly Glu Glu Ala Ser  
1 5 10 15  
tgt tct tcc tgg ggg act ggc agc aca aat aaa aat tng ccc att atg 97  
Cys Ser Ser Trp Gly Thr Gly Ser Thr Asn Lys Asn Xaa Pro Ile Met  
20 25 30  
tca aca gca tct gtg gaa atc gat gat gca ttg tac agt cga cag agg 145  
Ser Thr Ala Ser Val Glu Ile Asp Asp Ala Leu Tyr Ser Arg Gln Arg  
35 40 45  
tac gtt ctt gga gac aca gca at 168  
Tyr Val Leu Gly Asp Thr Ala  
50 55

<210> 3149  
<211> 306  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 65..304

<400> 3149  
gttgctgggg gaatgcagaa ggcggccgagg gctagcaagc tcccggagcc ggcggcgac 60  
cacc atg acc cag tgc gtg gtc gta cag gtc ggc cag tgc gga aac cag 109  
Met Thr Gln Ser Val Val Val Gln Val Gly Gln Cys Gly Asn Gln  
1 5 10 15  
atc ggc tgc tgc ttc tgg gac ctg gca cta agg gag cac gcc gcg gtc 157  
Ile Gly Cys Cys Phe Trp Asp Leu Ala Leu Arg Glu His Ala Ala Val  
20 25 30  
aac cag aaa gga att tat gat gag gca ata agc agc ttc ttt aga aat 205  
Asn Gln Lys Gly Ile Tyr Asp Glu Ala Ile Ser Ser Phe Phe Arg Asn  
35 40 45  
gtg gac acc aga gtg gtt ggt gat ggt gga agt att tcc aag ggr aaa 253  
Val Asp Thr Arg Val Val Gly Asp Gly Gly Ser Ile Ser Lys Gly Lys  
50 55 60  
ata tgt tct tta aaa gca cga gca gtc ttg att grt atg gra gaa ggg 301  
Ile Cys Ser Leu Lys Ala Arg Ala Val Leu Ile Xaa Met Xaa Glu Gly  
65 70 75

gtg at  
Val  
80

<210> 3150  
<211> 397  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 195..395

<400> 3150  
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tgtttgatac atagttttaa atctttgaag aaaagtttaa aagaaagaac tatcaaaatc 120  
agtgaattac acatagtcaa aaaaatatat ggcattgaat ccagccatgt tccgttaagg 180  
gggatttgca tgta atg cca gag agg att ttg agc atg cta aaa tgg ata 230  
Met Pro Glu Arg Ile Leu Ser Met Leu Lys Trp Ile  
1 5 10  
aac agc ctt tgg aat gtc ctt ttt aac tgt ttc cac act agg aac agt 278  
Asn Ser Leu Trp Asn Val Leu Phe Asn Cys Phe His Thr Arg Asn Ser  
15 20 25  
agt aac tat gtt cag ctg cta ttt aag gcc cca aac aat tct ttg cat 326  
Ser Asn Tyr Val Gln Leu Leu Phe Lys Ala Pro Asn Asn Ser Leu His  
30 35 40  
tgt agt ttg tgg cct ggt cag cat tta cca agt cac cat gag agt ttt 374  
Cys Ser Leu Trp Pro Gly Gln His Leu Pro Ser His His Glu Ser Phe  
45 50 55 60  
ttg ttc ttt cac ttg aac ata tt 397  
Leu Phe Phe His Leu Asn Ile  
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ctttctgccc ctccactgac atg gcc cac cgg ggt ggg gag agg gac ttc cag 113  
Met Ala His Arg Gly Gly Glu Arg Asp Phe Gln  
1 5 10  
act tca gct cga cgc atg ggc acc tcg ctg ctc ttc cag ctt tca gtg 161  
Thr Ser Ala Arg Arg Met Gly Thr Ser Leu Leu Phe Gln Leu Ser Val  
15 20 25  
cat gaa cgg gag ctg gac ctg gtt ttt ctg gat cat agc tat gcc aag 209  
His Glu Arg Glu Leu Asp Leu Val Phe Leu Asp His Ser Tyr Ala Lys

30 35 40  
 cct tgg agt gcc cac cca gat gcc agt agt gcc cgc ccc acc cgc atg 257  
 Pro Trp Ser Ala His Pro Asp Ala Ser Ser Ala Arg Pro Thr Arg Met  
 45 50 55  
 ctc ttt gtc act ccc cgg cgg tcg 281  
 Leu Phe Val Thr Pro Arg Arg Ser  
 60 65

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 <222> 41..424

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 Met Ala Phe Lys Tyr  
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 ttg gtt cac tgt ctt caa tca gaa ctt aat aat tac atg cca gcc ttt 103  
 Leu Val His Cys Leu Gln Ser Glu Leu Asn Asn Tyr Met Pro Ala Phe  
 10 15 20  
 cta gat gac cct gaa gag aac agt ctg caa cga cca aaa ata gat gat 151  
 Leu Asp Asp Pro Glu Glu Asn Ser Leu Gln Arg Pro Lys Ile Asp Asp  
 25 30 35  
 gtg ctg cac acg ctc aca gga gcc atg tcc ttg cta cga cgc tgc aga 199  
 Val Leu His Thr Leu Thr Gly Ala Met Ser Leu Leu Arg Arg Cys Arg  
 40 45 50  
 gtc aat gcc gcc ctg acc atc cag ctc ttc tct cag ctc ttc cac ttc 247  
 Val Asn Ala Ala Leu Thr Ile Gln Leu Phe Ser Gln Leu Phe His Phe  
 55 60 65  
 atc aat atg tgg ctg ttc aat aga ttg gtg acc gac cba gat tcg ggg 295  
 Ile Asn Met Trp Leu Phe Asn Arg Leu Val Thr Asp Xaa Asp Ser Gly  
 70 75 80 85  
 ctg tgc tcc cat tac tgg ggt gcg att atc cgt cag cag ttg ggs cat 343  
 Leu Cys Ser His Tyr Trp Gly Ala Ile Ile Arg Gln Gln Leu Gly His  
 90 95 100  
 att gaa gcc tgg gct gag aag cag ggg ctg gga act ggc tgc gga ctg 391  
 Ile Glu Ala Trp Ala Glu Lys Gln Gly Leu Gly Thr Gly Cys Gly Leu  
 105 110 115  
 tca tct gag cag gat cgt gca ggc aac gac ttt gc 426  
 Ser Ser Glu Gln Asp Arg Ala Gly Asn Asp Phe  
 120 125

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 <221> CDS

<222> 75..302

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tgttttctcaa atgc atg gtg gty cct cag gtg gag agt ggg cag aag ttt 110  
Met Val Val Pro Gln Val Glu Ser Gly Gln Lys Phe  
1 5 10  
ttg caa cac ttt ttt ttt aag tta ttg ggt gca aaa tcc caa acc agg 158  
Leu Gln His Phe Phe Phe Lys Leu Leu Gly Ala Lys Ser Gln Thr Arg  
15 20 25  
ata tgt gta tgt ctg tgt gtt tat gtt ttt tat ttg acc ctc ccc tct 206  
Ile Cys Val Cys Leu Cys Val Tyr Val Phe Tyr Leu Thr Leu Pro Ser  
30 35 40  
ttc aac cta ccc cct ttt ata tct aat gta gaa aaa gcg aaa ttg aat 254  
Phe Asn Leu Pro Pro Phe Ile Ser Asn Val Glu Lys Ala Lys Leu Asn  
45 50 55 60  
ctg gaa agc aaa ctg ttg tat ata gtt gcg gta aca atc atg aag aga 302  
Leu Glu Ser Lys Leu Leu Tyr Ile Val Ala Val Thr Ile Met Lys Arg  
65 70 75  
ga 304

<210> 3154  
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<220>  
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<222> 79..258

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tggtcttttg gttgattt atg gac aca ctt gtt tca tct gac tgt aaa tat 111  
Met Asp Thr Leu Val Ser Ser Asp Cys Lys Tyr  
1 5 10  
att gca tgc ttt att ctg atg gtg cac tat ttc atc cag caa gct ttt 159  
Ile Ala Cys Phe Ile Leu Met Val His Tyr Phe Ile Gln Gln Ala Phe  
15 20 25  
cat ctg aga atg ttt aat gtt gac ctt att ctt aga gca agt aga tct 207  
His Leu Arg Met Phe Asn Val Asp Leu Ile Leu Arg Ala Ser Arg Ser  
30 35 40  
aaa tat ttt tca gct gag tta nta ggg agt cat tat tct gtg gta caa 255  
Lys Tyr Phe Ser Ala Glu Leu Xaa Gly Ser His Tyr Ser Val Val Gln  
45 50 55  
tgc t 259  
Cys  
60

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<212> DNA  
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 <222> 15..179

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                   Met Pro Leu Xaa Pro Leu Arg Val Arg Leu Val Ser  
                   1                  5                  10  
 cat ctc aac aac tac gct tcc cag cgg gaa gcc ggc gag cgg cgg ccc 98  
 His Leu Asn Asn Tyr Ala Ser Gln Arg Glu Ala Gly Glu Arg Arg Pro  
                   15                  20                  25  
 acg cgg gcc tcg gac aca ttc cct ggg gga ccg tct tcg gac atc acc 146  
 Thr Arg Ala Ser Asp Thr Phe Pro Gly Gly Pro Ser Ser Asp Ile Thr  
                   30                  35                  40  
 cgc aca tcg cgc acc cgc tgt tgc tgc ccc agc ct 181  
 Arg Thr Ser Arg Thr Arg Cys Cys Cys Pro Ser  
                   45                  50                  55

<210> 3156  
 <211> 385  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 134..385

<400> 3156  
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 tagatccctt ggtgctctcc acgctgttca ggctgaattg aagatccctc ttaccgcgcca 120  
 ggtgccaaga act atg aac agg cag ggc aat aga aag aca act aaa gaa 169  
                   Met Asn Arg Gln Gly Asn Arg Lys Thr Thr Lys Glu  
                   1                  5                  10  
 gga tcc aac gat ttg aaa ttc cag aac ttc agt ctg cca aaa aac agg 217  
 Gly Ser Asn Asp Leu Lys Phe Gln Asn Phe Ser Leu Pro Lys Asn Arg  
                   15                  20                  25  
 tca tgg cct cgc atc aat agt gcc aca ggc cag tac cag agg atg aac 265  
 Ser Trp Pro Arg Ile Asn Ser Ala Thr Gly Gln Tyr Gln Arg Met Asn  
                   30                  35                  40  
 aag cct ctt cta gac tgg gaa aga aac ttt gct gca gtc ctg gat gga 313  
 Lys Pro Leu Leu Asp Trp Glu Arg Asn Phe Ala Ala Val Leu Asp Gly  
                   45                  50                  55                  60  
 gca aaa ggc cac agt gat gat gan nmt gat gac cct gag ctt cgg atg 361  
 Ala Lys Gly His Ser Asp Asp Xaa Xaa Asp Asp Pro Glu Leu Arg Met  
                   65                  70                  75  
 gaa gag aca tgg cag tcg att aaa 385  
 Glu Glu Thr Trp Gln Ser Ile Lys  
                   80

<210> 3157  
 <211> 310

**SECRET**

<222> 39..308

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<211> 256
<212> DNA
<213> Homo sapiens
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<222> 96..254

1975

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 <211> 269  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 93..269

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 cgccccgtct gaccmtactt gccatcaccc ag atg cgc agg atc ytg tgg cag 113  
 Met Arg Arg Ile Leu Trp Gln  
 1 5  
 aaa gca gga scc tgg atg gga aga ggm gca gcc arg ccg agg tgg gcg 161  
 Lys Ala Gly Xaa Trp Met Gly Arg Gly Ala Ala Xaa Pro Arg Trp Ala  
 10 15 20  
 ccg ctc ccc ctc ccc ggc cct gcc cag gtc ctc aga gas ctg gga cct 209  
 Pro Leu Pro Leu Pro Gly Pro Ala Gln Val Leu Arg Xaa Leu Gly Pro  
 25 30 35  
 gas atc att agt gcc tgc ata atg gat gcc tcc ttc tct ctt ctt gga 257  
 Xaa Ile Ile Ser Ala Cys Ile Met Asp Ala Ser Phe Ser Leu Leu Gly  
 40 45 50 55  
 aat ccc cag tcc 269  
 Asn Pro Gln Ser

<210> 3160  
 <211> 342  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 46..342

<400> 3160  
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 Met His Gln Asp  
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 caa gag ggt gac acg gac gct ggc ctg aaa gct gaa gaa gca ggc att 105  
 Gln Glu Gly Asp Thr Asp Ala Gly Leu Lys Ala Glu Glu Ala Gly Ile  
 5 10 15 20  
 gga gac acc ccc agc ctg raa gac gaa gct gct ggt cac gtg acc caa 153  
 Gly Asp Thr Pro Ser Leu Xaa Asp Glu Ala Ala Gly His Val Thr Gln  
 25 30 35  
 gct cgc atg gtc agt aaa agc aaa gac ggg act gga agc gat gac aaa 201  
 Ala Arg Met Val Ser Lys Ser Lys Asp Gly Thr Gly Ser Asp Asp Lys  
 40 45 50  
 aaa gcc aag ggg gct gat ggt aaa acg aag atc gcc ama ccg cgg gga 249  
 Lys Ala Lys Gly Ala Asp Gly Lys Thr Lys Ile Ala Xaa Pro Arg Gly



															297	
55					60					65						
gca	gcc	cct	cca	ggc	cag	aag	ggc	cag	gcc	aac	gcc	acc	agg	att	cca	
Ala	Ala	Pro	Pro	Gly	Gln	Lys	Gly	Gln	Ala	Asn	Ala	Thr	Arg	Ile	Pro	
70						75					80					
gca	aaa	acc	ccg	ccc	gct	cca	aag	aca	cca	ccc	agc	tct	ggt	gaa		342
Ala	Lys	Thr	Pro	Pro	Ala	Pro	Lys	Thr	Pro	Pro	Ser	Ser	Gly	Glu		
85					90					95						

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<211> 369
<212> DNA
<213> Homo sapiens
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[illegible]

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<400> 3164  
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 Met Pro Gly Gly Ser Xaa Gly Arg Lys Met Ala Ala Gly Asp Ile Gly  
 1 5 10 15  
 gag ctg cta gtg ccc cac atg ccc acg atc cgc gtg ccc agg tcc ggc 96  
 Glu Leu Leu Val Pro His Met Pro Thr Ile Arg Val Pro Arg Ser Gly  
 20 25 30  
 gac agg gtc tac aag aat gag tgc gcc tty tcc tac gac tct ccc aag 144  
 Asp Arg Val Tyr Lys Asn Glu Cys Ala Phe Ser Tyr Asp Ser Pro Lys  
 35 40 45  
 gta aca att gct tgt gat gca gtt ctc agc tca aaa tct cca tac aga 192  
 Val Thr Ile Ala Cys Asp Ala Val Leu Ser Ser Lys Ser Pro Tyr Arg  
 50 55 60  
 aag cag gac cca gac acg tgg gaa aat gaa ttg cca gta tct aaa tat 240  
 Lys Gln Asp Pro Asp Thr Trp Glu Asn Glu Leu Pro Val Ser Lys Tyr  
 65 70 75 80  
 gcc aac aac ctc acc cag ctg gac aat gga gtc agg att cct cca agt 288  
 Ala Asn Asn Leu Thr Gln Leu Asp Asn Gly Val Arg Ile Pro Pro Ser  
 85 90 95  
 ggt tgg aag tgt gcc aga tgc gac ctg cga gaa aac ctc tgg ttg aat 336  
 Gly Trp Lys Cys Ala Arg Cys Asp Leu Arg Glu Asn Leu Trp Leu Asn  
 100 105 110  
 ctg act gac ggc tct gtc ctg tgt gga aag tgg ttc ttt gac agc tct 384  
 Leu Thr Asp Gly Ser Val Leu Cys Gly Lys Trp Phe Phe Asp Ser Ser  
 115 120 125  
 ggg ggc aac ggg cat gcg ctg gag cat tac aga gac atg ggc ta 428  
 Gly Gly Asn Gly His Ala Leu Glu His Tyr Arg Asp Met Gly  
 130 135 140  
  
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 <212> DNA  
 <213> Homo sapiens  
  
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 <221> CDS  
 <222> 20..208  
  
 <400> 3165  
 aggcgcggca cccccgcgc atg cct ggt gca cag agt ctg cag gtc ggg cgg 52  
 Met Pro Gly Ala Gln Ser Leu Gln Val Gly Arg  
 1 5 10  
 tas gac agg tca gag ctg cgg cct gag cag cca gcg tcc ggc atg aag 100  
 Xaa Asp Arg Ser Glu Leu Arg Pro Glu Gln Pro Ala Ser Gly Met Lys  
 15 20 25  
 gtc tgg ggt ctg gct gmt gmc tgc dwc ttg stc cav mac mat gga atv 148  
 Val Trp Gly Leu Ala Xaa Xaa Cys Xaa Leu Xaa Xaa Xaa Gly Xaa  
 30 35 40  
 cmt rcg cag www acc ctg cct cct gmc ccg cgc gat gag act tcc ccg 196  
 Xaa Xaa Gln Xaa Thr Leu Pro Xaa Pro Arg Asp Glu Thr Ser Pro  
 45 50 55  
 gmg gac gct gtg t 209  
 Xaa Asp Ala Val

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<210> 3166  
<211> 449  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 124..447

<400> 3166  
agcggcgccc agtctaaggg agtgggagct ggtccgtgcc gcggcgcccg cgcagggagc 60  
tctcgaggca acgcccgggc gcccgaggtc tggaaggcgc agaaatggad caagagccac 120  
aaa atg gag aac ctg ctg aaa att aag atc atc aga gaa gca tat aag 168  
Met Glu Asn Leu Leu Lys Ile Lys Ile Ile Arg Glu Ala Tyr Lys  
1 5 10 15  
aag gcc ttt tta ttt gtt aac aaa ggt ctg aat aca gat gaa tta ggt 216  
Lys Ala Phe Leu Phe Val Asn Lys Gly Leu Asn Thr Asp Glu Leu Gly  
20 25 30  
cag aag baa gaa gca aag aac tac tat aag caa gga ata gga cac ctg 264  
Gln Lys Xaa Glu Ala Lys Asn Tyr Tyr Lys Gln Gly Ile Gly His Leu  
35 40 45  
ctc ara ggg atc akc ddt tca tca aaa gag tct gaa cac aca ggt cct 312  
Leu Xaa Gly Ile Xaa Xaa Ser Ser Lys Glu Ser Glu His Thr Gly Pro  
50 55 60  
ggg tgg gaa tct gct aga cag atg caa cag aaa atg aaa gaa act cta 360  
Gly Trp Glu Ser Ala Arg Gln Met Gln Gln Lys Met Lys Glu Thr Leu  
65 70 75  
cag aat gta mgc acc agg ctg gmv dat tct aga gaa ggg tct tgc cac 408  
Gln Asn Val Xaa Thr Arg Leu Xaa Xaa Ser Arg Glu Gly Ser Cys His  
80 85 90 95  
ttc tct agc agr atg atc ttc agg agg tgc cca agt tat at 449  
Phe Ser Ser Arg Met Ile Phe Arg Arg Cys Pro Ser Tyr  
100 105

<210> 3167  
<211> 206  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 54..206

<400> 3167  
gttggggaag caggcaatgt tatectctga aataccatta cttgagaaww aca atg 56  
Met  
1  
ata gct aat gtg ttt ttg agc att tat aca cta ggc cct ggt aag cac 104  
Ile Ala Asn Val Phe Leu Ser Ile Tyr Thr Leu Gly Pro Gly Lys His  
5 10 15

ttt atc kgc att atc tca ttt aaw tcw cca nrg mat bcc tct ggw gar 152  
 Phe Ile Xaa Ile Ile Ser Phe Xaa Ser Pro Xaa Xaa Xaa Ser Gly Glu  
 20 25 30  
 att att tgt att atc ctt gtt tta cag ttg aga aaa ctg agg ctt aga 200  
 Ile Ile Cys Ile Ile Leu Val Leu Gln Leu Arg Lys Leu Arg Leu Arg  
 35 40 45  
 ggg ggt  
 Gly Gly  
 50 206

<210> 3168  
 <211> 361  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 190..360

<400> 3168  
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 ataaatgtta ttgtcgctgt ttaccgatg agggttggat tagaggggtt aaacaacttg 120  
 tcttaggtc cacagctggg aacaagtggg gctgggaagc tgacttcgtg ctcttcacca 180  
 ccacaaagg atg tgt gtg cat cct ggg gca tgc ctg cct cat gtg ggg gtg 231  
 Met Cys Val His Pro Gly Ala Cys Leu Pro His Val Gly Val  
 1 5 10  
 tcc tgg gct gaa ttt cct ggg cac ttc tca gtg gaa ctc tct agc ctc 279  
 Ser Trp Ala Glu Phe Pro Gly His Phe Ser Val Glu Leu Ser Ser Leu  
 15 20 25 30  
 ctg gtt cgg aat gtc aac tat gag atc ccc tca ctg aag aag cag att 327  
 Leu Val Arg Asn Val Asn Tyr Glu Ile Pro Ser Leu Lys Lys Gln Ile  
 35 40 45  
 gcc aag tgc cag cag ctg cag caa gaa tac agc c 361  
 Ala Lys Cys Gln Gln Leu Gln Gln Glu Tyr Ser  
 50 55

<210> 3169  
 <211> 266  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 87..266

<400> 3169  
 tcaccatctt tacttctctt ttgttttat ggcagtatgc cataggcagt ggcttccagg 60  
 gttgggacaa gggtaagtca agcgag atg cct agg atg caa aat tta aga agg 113  
 Met Pro Arg Met Gln Asn Leu Arg Arg  
 1 5  
 cac tca ctc tta ggt tcc tgc aag agc caa tcc tgc atg tct tct tca 161  
 His Ser Leu Leu Gly Ser Cys Lys Ser Gln Ser Cys Met Ser Ser Ser

[illegible]

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<211> 209
<212> DNA
<213> Homo sapiens
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<400> 3170
tmaaaccama tttagcatag gaaaaagttg ttta atg ctc agg gca saa att tgs
                                     Met Leu Arg Ala Xaa Ile Xaa
                                     1           5
sgg aag ttg aaa tcc tct gtt ggc ttt ggg ttg tat aag gag gat caa
Xaa Lys Leu Lys Ser Ser Val Gly Phe Gly Leu Tyr Lys Glu Asp Gln
                                     10           15           20
aac aac aga gga aat gct gac ttt cta gct ttg cat gac acc tgg agc
Asn Asn Arg Gly Asn Ala Asp Phe Leu Ala Leu His Asp Thr Trp Ser
                                     25           30           35
aat gca ctg tac ctg cct cac tcc tgt cca gtg gtc agg ttt ccc ctg
Asn Ala Leu Tyr Leu Pro His Ser Cys Pro Val Val Arg Phe Pro Leu
                                     40           45           50           55
acc ttc cct c
Thr Phe Pro

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<220>
<221> CDS
<222> 118..276
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<400> 3171
taagtaagtg aaaatatgat caatatcact agtcattagc aaaatgcaaa acaaaaccac    60
aatgagataa tacttcacac tcattaggat ggcaactgta aaaacaatac ataacaa      117
atg aac aca atc cag aaa ata aca agt gta tgt aag gat gca gag ata      165
Met Asn Thr Ile Gln Lys Ile Thr Ser Val Cys Lys Asp Ala Glu Ile
1             5             10             15
ctg aaa gca gtg gta cag cca ctg tgg aaa gtt gta tcg tca tat ttc      213

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Leu Lys Ala Val Val Gln Pro Leu Trp Lys Val Val Ser Ser Tyr Phe  
 20 25 30  
 aaa caa tta aac ata aca tta cca tat gat cca gca att aca tgt cag 261  
 Lys Gln Leu Asn Ile Thr Leu Pro Tyr Asp Pro Ala Ile Thr Cys Gln  
 35 40 45  
 tgc atg cac ccc ccg a 277  
 Cys Met His Pro Pro  
 50

<210> 3172  
 <211> 341  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 107..340

<400> 3172 60  
 ccgggtattac tctgctacac gtagcctttt tacttttggg gttttgtttt tgttctgaac 115  
 ttttctgtta ccttttcagg gctgacgtca catgtaggtg gcgtgt atg agt gga  
 Met Ser Gly  
 1  
 gac ggg cct ggg tct tgg gga ctg gag ggc agg ggt cct tct gcc ctg 163  
 Asp Gly Pro Gly Ser Trp Gly Leu Glu Gly Arg Gly Pro Ser Ala Leu  
 5 10 15  
 ggg tcc cag ggt gct ctg cct gct cag cca ggc ctc tcc tgg gag cca 211  
 Gly Ser Gln Gly Ala Leu Pro Ala Gln Pro Gly Leu Ser Trp Glu Pro  
 20 25 30 35  
 ctc gcc cag aga ctc agc ttg gcc aac ttg ggg ggc tgt gtc cac cca 259  
 Leu Ala Gln Arg Leu Ser Leu Ala Asn Leu Gly Gly Cys Val His Pro  
 40 45 50  
 gcc cgc ccg tcc tgt gvn ctg cac agc tca cct tgt tcc ctc ctg ccc 307  
 Ala Arg Pro Ser Cys Xaa Leu His Ser Ser Pro Cys Ser Leu Leu Pro  
 55 60 65  
 cgg ttc gag agc cga gtc tgt ggg cac tct ctg c 341  
 Arg Phe Glu Ser Arg Val Cys Gly His Ser Leu  
 70 75

<210> 3173  
 <211> 258  
 <212> DNA  
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<220>  
 <221> CDS  
 <222> 43..258

<400> 3173 54  
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 Met Trp Gln Lys  
 1

acg gaa act gta aaa caa gaa aat gct gca gtt cag aag atg gtt gaa 102  
 Thr Glu Thr Val Lys Gln Glu Asn Ala Ala Val Gln Lys Met Val Glu  
 5 10 15 20  
 aat tta aag aaa cag att tca gaa tta aaa atc aaa aac caa caa ttg 150  
 Asn Leu Lys Lys Gln Ile Ser Glu Leu Lys Ile Lys Asn Gln Gln Leu  
 25 30 35  
 gat ttg gaa aat aca gaa ctt agc caa aag aac tct caa aac cag gaa 198  
 Asp Leu Glu Asn Thr Glu Leu Ser Gln Lys Asn Ser Gln Asn Gln Glu  
 40 45 50  
 aaa ctg caa gaa ctt aat caa cgt cta aca gaa atg cta tgc cag aag 246  
 Lys Leu Gln Glu Leu Asn Gln Arg Leu Thr Glu Met Leu Cys Gln Lys  
 55 60 65  
 gaa aaa gag cca 258  
 Glu Lys Glu Pro  
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<210> 3174  
 <211> 385  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 150..383

<400> 3174  
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 tgaggttctc gggaggaggg ttcagctgaa agggctaatt ggaaagagag ccatgaaatg 120  
 cmcatattgt gacttttatt tcatgaaga atg gct cag acc ttc arg crt cat 173  
 Met Ala Gln Thr Phe Xaa Xaa His  
 1 5  
 att tgg gct cat gaa ggt gtg aag ccc ttc aag tgt tct ttg wgt gag 221  
 Ile Trp Ala His Glu Gly Val Lys Pro Phe Lys Cys Ser Leu Xaa Glu  
 10 15 20  
 tat gca act cgt agc aag agt aac ctc aag gct cat atg aat cgt cac 269  
 Tyr Ala Thr Arg Ser Lys Ser Asn Leu Lys Ala His Met Asn Arg His  
 25 30 35 40  
 agc act gag aaa acc cac cta tgt gac atg tgt ggc aag aaa ttc aaa 317  
 Ser Thr Glu Lys Thr His Leu Cys Asp Met Cys Gly Lys Lys Phe Lys  
 45 50 55  
 tcr aaa ggg rca ctg aaa agt cac aaa ctc ctt cac act gca gat ggg 365  
 Ser Lys Gly Xaa Leu Lys Ser His Lys Leu Leu His Thr Ala Asp Gly  
 60 65 70  
 aag cag ttt aag tgc acg gt 385  
 Lys Gln Phe Lys Cys Thr  
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<220>



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cggtgtctggg gactggcccc tctggcgccg ttcgggtttct cttattgcct tcactgagg 119  
atg agt ccc ttt gtg gct cta tgt gga ccc tgc gga atc cac krg cgc 167  
Met Ser Pro Phe Val Ala Leu Cys Gly Pro Cys Gly Ile His Xaa Arg  
1 5 10 15  
agt tca tct agc gac tgg tca ccc ttg caa tta tgg ata ttt aaa agg 215  
Ser Ser Ser Ser Asp Trp Ser Pro Leu Gln Leu Trp Ile Phe Lys Arg  
20 25 30  
gtc aga cag tgt gga ggg gga gtt ccc ctc ctc act ccc cct tgg tgc 263  
Val Arg Gln Cys Gly Gly Gly Val Pro Leu Leu Thr Pro Pro Trp Cys  
35 40 45  
ttg acc cac t 273  
Leu Thr His  
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<220>  
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<222> 35..364

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Met Gly Tyr Phe Val Arg Thr  
1 5  
agc tat gat act gtg ata agt att ggc ttc cat gct gta ttt tct aca 103  
Ser Tyr Asp Thr Val Ile Ser Ile Gly Phe His Ala Val Phe Ser Thr  
10 15 20  
tat gta tgc atg tat gtc aaa gtg ttt gaa aga gcc tgg aac aat tta 151  
Tyr Val Cys Met Tyr Val Lys Val Phe Glu Arg Ala Trp Asn Asn Leu  
25 30 35  
tca ctc tct ctc att gaa ata gag gga ctg ggc tgg gtg cag tgg ctc 199  
Ser Leu Ser Leu Ile Glu Ile Glu Gly Leu Trp Val Gln Trp Leu  
40 45 50 55  
acg cct gta atc cca gtg ctt tgg gag gcc gag gcg ggc gga tca caa 247  
Thr Pro Val Ile Pro Val Leu Trp Glu Ala Glu Ala Gly Gly Ser Gln  
60 65 70  
ggg cag gag att gag acc atc ctg gct aac atg atg aaa agc cca tct 295  
Gly Gln Glu Ile Glu Thr Ile Leu Ala Asn Met Met Lys Ser Pro Ser  
75 80 85  
cta cta aaa ata caa aaa att agc tgg gcg tgg tgg cgg gcg cct gta 343  
Leu Leu Lys Ile Gln Lys Ile Ser Trp Ala Trp Trp Arg Ala Pro Val  
90 95 100  
agt ccc agc tac tcg gga cgc gg 366  
Ser Pro Ser Tyr Ser Gly Arg

110

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Met Lys Glu Tyr Gly Pro Ile His Ile Leu																
1 5 10																
tgg tca gcg tca gaa gag gat ctg gtt gat act cta aag gat gtt gcc																99
Trp Ser Ala Ser Glu Glu Asp Leu Val Asp Thr Leu Lys Asp Val Ala																
15 20 25																
agc tgc att gac aga tgc tgt aag gcc act gaa aag cgg atg tct gga																147
Ser Cys Ile Asp Arg Cys Cys Lys Ala Thr Glu Lys Arg Met Ser Gly																
30 35 40																
ctc tca gag gcc ctg ctt cct gtt gta cat gaa tac gyg ctt tat agt																195
Leu Ser Glu Ala Leu Leu Pro Val Val His Glu Tyr Xaa Leu Tyr Ser																
45 50 55																
gaa atg tta atg ggt gtt atg aaa aga aga gac caa ata caa gca gaa																243
Glu Met Leu Met Gly Val Met Lys Arg Arg Asp Gln Ile Gln Ala Glu																
60 65 70																
cgt																246
Arg																
75																

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<220>  
<221> CDS  
<222> 73..303
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[illegible]

His Val Leu Thr Pro Ala Thr Ala Arg Pro Ser Gln Ala Leu Gly Pro  
                   50                  55                  60  
 tgg gtc ctc agc tgt gat ggc aca att gct cca agc att ccc caa gca 303  
 Trp Val Leu Ser Cys Asp Gly Thr Ile Ala Pro Ser Ile Pro Gln Ala  
                   65                  70                  75  
 cc 305

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 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 134..298

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 tcaagactgg gaaagagcca aagtgggaag gagcatgggt tgattggcac aaaagtaggt 120  
 ctgctgataa aga atg gaa gta aag ggg cca tca ggt aga agc ttt tgc 169  
                   Met Glu Val Lys Gly Pro Ser Gly Arg Ser Phe Cys  
                   1                  5                  10  
 tgt gag tca gaa gga caa ttt aaa agt tgc cta aag agg cac acg cca 217  
 Cys Glu Ser Glu Gly Gln Phe Lys Ser Cys Leu Lys Arg His Thr Pro  
                   15                  20                  25  
 tct ctg ctg ctg cct tcc agt tgg aag gga aac tca ggt tct tgc cta 265  
 Ser Leu Leu Leu Pro Ser Ser Trp Lys Gly Asn Ser Gly Ser Cys Leu  
                   30                  35                  40  
 atg gcc gaa gcc ctt cac aga atk tcc ccc aca c 299  
 Met Ala Glu Ala Leu His Arg Xaa Ser Pro Thr  
                   45                  50                  55

<210> 3180  
 <211> 198  
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 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 34..198

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                   Met Ile Thr Phe Tyr Val Arg  
                   1                  5  
 ttc ttc ctc act tat gtg cca cta ttg ggg ctg aaa gcc ttc ctg ggc 102  
 Phe Phe Leu Thr Tyr Val Pro Leu Leu Gly Leu Lys Ala Phe Leu Gly  
                   10                  15                  20  
 ctt ttc ttc ata gtc agg ttc ctg gaa agc aac tgg ttt gtg tgg gtg 150  
 Leu Phe Phe Ile Val Arg Phe Leu Glu Ser Asn Trp Phe Val Trp Val  
                   25                  30                  35  
 aca cag atg aac cat att ccc atg cac att gat cat gac cgg aac aaa 198

Thr Gln Met Asn His Ile Pro Met His Ile Asp His Asp Arg Asn Lys  
 40 45 50 55

<210> 3181  
 <211> 177  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 13..177

<400> 3181  
 gtttttgtat cc atg tgg aaa aca cag gaa gct aat agt act gtt ttt ctc 51  
 Met Trp Lys Thr Gln Glu Ala Asn Ser Thr Val Phe Leu  
 1 5 10  
 tgg agt ggg tgt aag ggt aga gac tta act ctt tac atc ctt atg gca 99  
 Trp Ser Gly Cys Lys Gly Arg Asp Leu Thr Leu Tyr Ile Leu Met Ala  
 15 20 25  
 gcc ttc gaa tac ctt tta act ccc agt tcc ctt aac tgg ggg tgt grt 147  
 Ala Phe Glu Tyr Leu Leu Thr Pro Ser Ser Leu Asn Trp Gly Cys Xaa  
 30 35 40 45  
 atc cta gaa tcc tcg acc cat tmg aaa gta 177  
 Ile Leu Glu Ser Ser Thr His Xaa Lys Val  
 50 55

<210> 3182  
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 <212> DNA  
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<220>  
 <221> CDS  
 <222> 77..253

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 caccaagata cagatt atg aaa cta att ata aac ttt act gaa aat cca gcc 112  
 Met Lys Leu Ile Ile Asn Phe Thr Glu Asn Pro Ala  
 1 5 10  
 atg aca aga gag ctg gtc agt tgt aaa gta cca tca gaa ttg att tcc 160  
 Met Thr Arg Glu Leu Val Ser Cys Lys Val Pro Ser Glu Leu Ile Ser  
 15 20 25  
 ctc ttt aat aaa gaa tgg gat aga gag att ctt ctt aat atc ctt acc 208  
 Leu Phe Asn Lys Glu Trp Asp Arg Glu Ile Leu Leu Asn Ile Leu Thr  
 30 35 40  
 cta ttt gag aat ata aat gac aac ata aaa aat gaa ggg ctc gca tc 255  
 Leu Phe Glu Asn Ile Asn Asp Asn Ile Lys Asn Glu Gly Leu Ala  
 45 50 55

<210> 3183  
 <211> 305

<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 24..305

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Met Asn Lys Pro Gly Ala Phe Thr Ala Glu  
1 5 10  
ttt tcg aga caa ccc tcc ggt act aga atg cga cag ccg ctg cgg ata 101  
Phe Ser Arg Gln Pro Ser Gly Thr Arg Met Arg Gln Pro Leu Arg Ile  
15 20 25  
ttt ttt ggc aca aar aac aaa tkg gtg gsa gtg caa hgc ccc wtg gct 149  
Phe Phe Gly Thr Lys Asn Lys Xaa Val Xaa Val Gln Xaa Pro Xaa Ala  
30 35 40  
aaa act act caa aag agg cat aag ggt agc rtt aat cgc tca agt ctt 197  
Lys Thr Thr Gln Lys Arg His Lys Gly Ser Xaa Asn Arg Ser Ser Leu  
45 50 55  
tta ctg cat gga gta ctg ttg tcc ata ttt tta aaa cta aaa gta ccc 245  
Leu Leu His Gly Val Leu Leu Ser Ile Phe Leu Lys Leu Lys Val Pro  
60 65 70  
gtt agt aac att tgt tgt atg ccc ata aag atg ggg ttg rnb cgg ggg 293  
Val Ser Asn Ile Cys Cys Met Pro Ile Lys Met Gly Leu Xaa Arg Gly  
75 80 85 90  
gcg ggg gaa gaa 305  
Ala Gly Glu Glu

<210> 3184  
<211> 255  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> 103..255

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gcaggctcac atgtacggat tgttcttgtg aggagcatca tc atg ggg tct agt 114  
Met Gly Ser Ser  
1  
gcc aca gag att gaa gaa ttg gaa aac acc act ttt aag tat ctt aca 162  
Ala Thr Glu Ile Glu Glu Leu Glu Asn Thr Thr Phe Lys Tyr Leu Thr  
5 10 15 20  
gga gaa cag act gaa aaa atg tgg cag cgc ctg aaa gga ata cta aga 210  
Gly Glu Gln Thr Glu Lys Met Trp Gln Arg Leu Lys Gly Ile Leu Arg  
25 30 35  
tgc ttg gtg aag cag ctg gaa aga ggt gat gtt aac gtc gtc aac 255  
Cys Leu Val Lys Gln Leu Glu Arg Gly Asp Val Asn Val Val Asn  
40 45 50

[illegible]

# Chapman & Hall

[illegible][illegible][illegible]

# SECRET

65		70		75		80	
cag ccg arg cty tcg ctg act ctg tmc agc tcr agt gtc tgc agg gaa							348
Gln Pro Xaa Leu Ser Leu Thr Leu Xaa Ser Ser Ser Val Ser Arg Glu							
	85		90		95		
tgt gtc cac tcc ccc acg c							367
Cys Val His Ser Pro Thr							
	100						

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 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 105..356

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atcacgtgcc acatttgctt ggggaaggta cgtcagcctg tcat atg cat caa caa	116
	Met His Gln Gln
	1
cca tgt att ttg ttc gat ttt gtt att gat ttg sgg ttg aag aat aat	164
Pro Cys Ile Leu Phe Asp Phe Val Ile Asp Leu Xaa Leu Lys Asn Asn	
5	10 15 20
agc cag tgt cca gct tgc aga gtc ccc atc act cct gaa aat cct tgc	212
Ser Gln Cys Pro Ala Cys Arg Val Pro Ile Thr Pro Glu Asn Pro Cys	
	25 30 35
aaa gaa att ata gga gga aca agt gaa agt gaa cct atg cta agc cat	260
Lys Glu Ile Ile Gly Gly Thr Ser Glu Ser Glu Pro Met Leu Ser His	
	40 45 50
acg gtc agg aag cat ctt cgg aaa act aga ctt gaa tta cta cac aaa	308
Thr Val Arg Lys His Leu Arg Lys Thr Arg Leu Glu Leu Leu His Lys	
	55 60 65
gaa tat gag gac gaa ata gat tgt tta cag aaa gaa gta gaa gag cca c	357
Glu Tyr Glu Asp Glu Ile Asp Cys Leu Gln Lys Glu Val Glu Glu Pro	
	70 75 80

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 <211> 319  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 146..319

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gaagcaataa ctgtcatgtg gggagargtt aragctattg agmsgatagc aggcaacta	120
caaagatcty catggaaaat tagcc atg tgg aam mca tca gag gcc tct aaa	172
	Met Trp Xaa Xaa Ser Glu Ala Ser Lys

						1				5										
aat	cac	cca	tta	att	cag	gaa	ggc	caa	gga	gaw	rgg	cct	tat	aga	gac					220
Asn	His	Pro	Leu	Ile	Gln	Glu	Gly	Gln	Gly	Xaa	Xaa	Pro	Tyr	Arg	Asp					
10					15					20					25					
gtt	grt	atg	ttg	gat	gtg	cct	agg	ctt	tca	gag	cca	ssc	ttt	cca	caa					268
Val	Xaa	Met	Leu	Asp	Val	Pro	Arg	Leu	Ser	Glu	Pro	Xaa	Phe	Pro	Gln					
				30				35					40							
mac	ccc	tcc	ctg	caa	agt	rtt	tat	ttc	ama	tct	gca	ctg	tct	ggc	aca					316
Xaa	Pro	Ser	Leu	Gln	Ser	Xaa	Tyr	Phe	Xaa	Ser	Ala	Leu	Ser	Gly	Thr					
			45					50					55							
gat																			319	
Asp																				

&lt;210&gt; 3189

&lt;211&gt; 304

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 17..304

&lt;400&gt; 3189

cttaacaatg	taaaga	atg	tgc	aaa	tgt	cct	cag	acn	aga	tgc	aca	cct	wgc		52					
	Met	Cys	Lys	Cys	Pro	Gln	Thr	Arg	Cys	Thr	Pro	Xaa								
			1			5				10										
tca	tta	gtg	adw	tca	ttt	cag	gca	gcc	agc	tct	tcc	tca	ccc	act	aca					100
Ser	Leu	Val	Xaa	Ser	Phe	Gln	Ala	Ala	Ser	Ser	Ser	Ser	Pro	Thr	Thr					
		15				20				25										
tca	cca	agt	cct	gtg	gat	ata	tct	gct	aaa	taw	ttt	tgg	aat	ttt	atc					148
Ser	Pro	Ser	Pro	Val	Asp	Ile	Ser	Ala	Lys	Xaa	Phe	Trp	Asn	Phe	Ile					
	30				35				40											
cam	ttc	ttt	tgg	ttc	ccc	agt	cca	aaa	cac	agt	cat	ttc	acc	tgg	act					196
Xaa	Phe	Phe	Trp	Phe	Pro	Ser	Pro	Lys	His	Ser	His	Phe	Thr	Trp	Thr					
	45				50				55				60							
att	tca	atc	att	aca	cag	gtg	tcc	aac	ctt	ttg	wct	tcc	ctg	ggc	cac					244
Ile	Ser	Ile	Ile	Thr	Gln	Val	Ser	Asn	Leu	Leu	Xaa	Ser	Leu	Gly	His					
			65				70						75							
att	gga	agw	wga	aaa	att	gtc	ttg	tgc	cac	aca	tac	aat	aca	cta	aca					292
Ile	Gly	Xaa	Xaa	Lys	Ile	Val	Leu	Cys	His	Thr	Tyr	Asn	Thr	Leu	Thr					
		80					85					90								
tta	aca	ata	gct																304	
Leu	Thr	Ile	Ala																	
		95																		

&lt;210&gt; 3190

&lt;211&gt; 245

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 53..244



&lt;400&gt; 3190

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agctgaacct tatgctgcag atgaagggttc tggggaagga cataaatggt tg atg gtg      58
                                     Met Val
                                     1
cat gtt gat aaa aga att act ctg gca gct ttc aaa caa cat tta gag      106
His Val Asp Lys Arg Ile Thr Leu Ala Ala Phe Lys Gln His Leu Glu
      5              10              15
ccc ttt gtt gga gtt ttg tcc tct cac ttc aag gtc tdt cga gtg tat      154
Pro Phe Val Gly Val Leu Ser Ser His Phe Lys Val Xaa Arg Val Tyr
      20              25              30
gcc agc aat caa gag ttt gag agc gtc cgg ctg aat gag aca ctt tca      202
Ala Ser Asn Gln Glu Phe Glu Ser Val Arg Leu Asn Glu Thr Leu Ser
      35              40              45              50
tca ttt tct gat gac aat aag att aca att aga ccg ggg agg t      245
Ser Phe Ser Asp Asp Asn Lys Ile Thr Ile Arg Pro Gly Arg
      55              60

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&lt;210&gt; 3191

&lt;211&gt; 404

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; 158..403

&lt;400&gt; 3191

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aaaactgaag ccgcggccga aaacgccaaag agattgatgc tgtagctgcc ctgagataac      60
caggactgtg gaatcgggaa gagctcatgg agctcgcgaa tgtaatacgg aggcctctga      120
ggaaggagta cggaggccga gaaggagccg gcatttg atg agc gaa ccg gga aag      175
                                     Met Ser Glu Pro Gly Lys
                                     1              5
gga gac gat tgc ctc gag ctg gag agt tcc atg gct gag agt agg ctc      223
Gly Asp Asp Cys Leu Glu Leu Glu Ser Ser Met Ala Glu Ser Arg Leu
      10              15              20
cgg gcc ccg gac cta gga gtt tcc agg tgt cta gga aaa tgc cag aag      271
Arg Ala Pro Asp Leu Gly Val Ser Arg Cys Leu Gly Lys Cys Gln Lys
      25              30              35
aac tca cca ggt gcc agg aag cat ccc ttt tcc gga aag tcc ttt tac      319
Asn Ser Pro Gly Ala Arg Lys His Pro Phe Ser Gly Lys Ser Phe Tyr
      40              45              50
ttg gat ctg cct gct ggc aag aat ctc cag ttt ttg acg ggg gcc att      367
Leu Asp Leu Pro Ala Gly Lys Asn Leu Gln Phe Leu Thr Gly Ala Ile
      55              60              65              70
cag caa ctg ggt ggg gta wtt gag ggt ttt ctg agc a      404
Gln Gln Leu Gly Gly Val Xaa Glu Gly Phe Leu Ser
      75              80

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&lt;210&gt; 3192

&lt;211&gt; 250

&lt;212&gt; DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 82..249

<400> 3192

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aagggatctg tgctacacaa t atg cca gga cct crc aga caw agc caw tgc      111
                        Met Pro Gly Pro Xaa Arg Xaa Ser Xaa Cys
                        1          5          10
bad aaa wgt cat tcv aad gaa tca gat ctg gaa aca ggc tgc cat aac      159
Xaa Lys Xaa His Ser Xaa Glu Ser Asp Leu Glu Thr Gly Cys His Asn
                        15          20          25
cac ttt tcc ttc ttg wag act cag ctc acc tgt ata ttt aaa ctg ttc      207
His Phe Ser Phe Leu Xaa Thr Gln Leu Thr Cys Ile Phe Lys Leu Phe
                        30          35          40
ttg gca tct tgh aac acc tat ttc tac tca ggt act caa ttg t      250
Leu Ala Ser Xaa Asn Thr Tyr Phe Tyr Ser Gly Thr Gln Leu
                        45          50          55
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<210> 3193

<211> 191

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 37..189

<400> 3193

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                        Met Glu Ala Asn Gly Leu
                        1          5
gga cct cag ggt ttt ccg gag ctg aag aat gac aca ttc ctg cga gca      102
Gly Pro Gln Gly Phe Pro Glu Leu Lys Asn Asp Thr Phe Leu Arg Ala
                        10          15          20
gcc tgg gga gag gaa aca gac tac act ccc gtt tgg tgc atg cgc cag      150
Ala Trp Gly Glu Glu Thr Asp Tyr Thr Pro Val Trp Cys Met Arg Gln
                        25          30          35
gca ggc cgt tac tta cca gag ttt agg gaa acc cgg gcc gc      191
Ala Gly Arg Tyr Leu Pro Glu Phe Arg Glu Thr Arg Ala
                        40          45          50
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<210> 3194

<211> 287

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 72..287

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ctgactacta a atg cca cta gca tct tcc agt ctt gtt aca aac aca mca      110
          Met Pro Leu Ala Ser Ser Ser Leu Val Thr Asn Thr Xaa
          1          5          10
aca ttc cca cac cac att tgc ara tat tcc tcc tgt ggc tgg caa ttc      158
Thr Phe Pro His His Ile Cys Xaa Tyr Ser Ser Cys Gly Trp Gln Phe
          15          20          25
tgc cca mtg aag gaa agc atg agt gta gta ttt ggt aaa gga cac att      206
Cys Pro Xaa Lys Glu Ser Met Ser Val Val Phe Gly Lys Gly His Ile
          30          35          40          45
tct aaa aat tcc aaa gtg agg gcc aga ccc ata act tta gaa ata tta      254
Ser Lys Asn Ser Lys Val Arg Ala Arg Pro Ile Thr Leu Glu Ile Leu
          50          55          60
gta cat gaa gga ctg ttc tat tcc cca act gcc      287
Val His Glu Gly Leu Phe Tyr Ser Pro Thr Ala
          65          70

<210> 3195
<211> 399
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> 94..399

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ttgttagtgt ttactgccct tgccatttta att atg agg cta aag atg ttt ttg      114
          Met Arg Leu Lys Met Phe Leu
          1          5
aca mcg cac atg tgt gtt atg gct tcc ttg ata tgc tct cga cag ctc      162
Thr Xaa His Met Cys Val Met Ala Ser Leu Ile Cys Ser Arg Gln Leu
          10          15          20
ttt ggc tgg ctt ttt cgc aga gtt cgt ttt gag aag gtt atc ttt ggc      210
Phe Gly Trp Leu Phe Arg Arg Val Arg Phe Glu Lys Val Ile Phe Gly
          25          30          35
att tta aca gtg atg tca ata caa ggt tat gca aac ctc cgt aat caa      258
Ile Leu Thr Val Met Ser Ile Gln Gly Tyr Ala Asn Leu Arg Asn Gln
          40          45          50          55
tgg agc ata ata gga gha ntt aat aat ttg cct cav gaa gaa ctt tta      306
Trp Ser Ile Ile Gly Xaa Xaa Asn Asn Leu Pro Xaa Glu Glu Leu Leu
          60          65          70
mag tgg atc aaa tac agt acc aca tca gat gct gtc ttt gca ggt gcc      354
Xaa Trp Ile Lys Tyr Ser Thr Thr Ser Asp Ala Val Phe Ala Gly Ala
          75          80          85
atg cct aca atg gca agc atc aag ctg tct aca ctt cat ccc att      399
Met Pro Thr Met Ala Ser Ile Lys Leu Ser Thr Leu His Pro Ile
          90          95          100

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<210> 3196  
 <211> 179  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 5..178

<400> 3196  
 cggg atg ccg gag ccc tcg ggc ctt gga gat gaa ggc agg ccc ctg ctc 49  
     Met Pro Glu Pro Ser Gly Leu Gly Asp Glu Gly Arg Pro Leu Leu  
     1                    5                    10                    15  
 ctg cca gga ggg agg gag gca gtg ggc tca tgg gtc ggt gcc ttt gca 97  
 Leu Pro Gly Gly Arg Glu Ala Val Gly Ser Trp Val Gly Ala Phe Ala  
                     20                    25                    30  
 gcc gac agc acg cct tgc ggc cct ggg gat ctt tct gtg ccc cgg cga 145  
 Ala Asp Ser Thr Pro Cys Gly Pro Gly Asp Leu Ser Val Pro Arg Arg  
             35                    40                    45  
 gac cct ttc ggc ctc act gca ttg gaa ccc cat t 179  
 Asp Pro Phe Gly Leu Thr Ala Leu Glu Pro His  
             50                    55

<210> 3197  
 <211> 223  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 12..221

<400> 3197  
 ctggagtttt a atg gtt gga cct aac ttt aga gtt gga aaa aaa att gga 50  
     Met Val Gly Pro Asn Phe Arg Val Gly Lys Lys Ile Gly  
     1                    5                    10  
 tgt ggc aat ttt gga gaa tta cga tta ggg aaa aat tta tac aca aat 98  
 Cys Gly Asn Phe Gly Glu Leu Arg Leu Gly Lys Asn Leu Tyr Thr Asn  
     15                    20                    25  
 gaa tat gtg gca att aag ttg gag ccc atg aaa tca aga gca cca cag 146  
 Glu Tyr Val Ala Ile Lys Leu Glu Pro Met Lys Ser Arg Ala Pro Gln  
     30                    35                    40                    45  
 cta cat ttg gaa tac aga ttc tat aag cag tta gga tct gga gat ggt 194  
 Leu His Leu Glu Tyr Arg Phe Tyr Lys Gln Leu Gly Ser Gly Asp Gly  
             50                    55                    60  
 ata cct caa gtt tac tat ttc ggc ccg ct 223  
 Ile Pro Gln Val Tyr Tyr Phe Gly Pro  
             65                    70

<210> 3198  
 <211> 198  
 <212> DNA

004220" 666E7560

<213> Homo sapiens

<220>

<221> CDS

<222> 46..198

<400> 3198

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aatgtaacat actctaccac ttggtctgaa gcccagcagt atctg atg gat aat cca      57
                                     Met Asp Asn Pro
                                     1
act ttt gca gaa gat gag gag tta caa aat atg gac aaa gaa gat gca      105
Thr Phe Ala Glu Asp Glu Glu Leu Gln Asn Met Asp Lys Glu Asp Ala
5          10          15          20
tta att tgc ttt gaa gaa cac att cgg gct tta gaa aag gag gaa gaa      153
Leu Ile Cys Phe Glu Glu His Ile Arg Ala Leu Glu Lys Glu Glu Glu
          25          30          35
gaa gaa aaa cag aag agt ttg ctg aga gaa agg aga cga cag cga      198
Glu Glu Lys Gln Lys Ser Leu Leu Arg Glu Arg Arg Arg Gln Arg
          40          45          50
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<210> 3199

<211> 294

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> 77..292

<400> 3199

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agttttgggt ttttaaactt ttggaattga acagagtcta gatatttcta tatatgatga      60
ctttcactca ttttgc atg gat cac aga act tta aat ctg caa att caa gtc      112
          Met Asp His Arg Thr Leu Asn Leu Gln Ile Gln Val
          1          5          10
ttc cct cta cct acc aga agc ggt ttt tta aaa atc atg tct tgg att      160
Phe Pro Leu Pro Thr Arg Ser Gly Phe Leu Lys Ile Met Ser Trp Ile
          15          20          25
att gct tcc att tca aat ttt ctg gtg tca gga tca tcc atg att ctc      208
Ile Ala Ser Ile Ser Asn Phe Leu Val Ser Gly Ser Ser Met Ile Leu
          30          35          40
aca cta gac ctc tgt atc tct tat gtt tgt cat gtt tta aaa ata att      256
Thr Leu Asp Leu Cys Ile Ser Tyr Val Cys His Val Leu Lys Ile Ile
          45          50          55          60
ttt tkc tct tct tkt tck tct cat tta tct cca aca ca      294
Phe Xaa Ser Ser Xaa Ser Ser His Leu Ser Pro Thr
          65          70
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<210> 3200

<211> 213

<212> DNA

<213> Homo sapiens

<220>  
 <221> CDS  
 <222> 7..213

<400> 3200  
 tttttc atg aga tgc aga gcc tgg aga gga gcg grs cgg cag gag cag 48  
 Met Arg Cys Arg Ala Trp Arg Gly Ala Xaa Arg Gln Glu Gln  
 1 5 10  
 cat gtt gca gcc gct att cta ggg gcg ctg ggt gaa gtg ggc tgc cct 96  
 His Val Ala Ala Ala Ile Leu Gly Ala Leu Gly Glu Val Gly Cys Pro  
 15 20 25 30  
 ctg cca ccc tct ccc agg tgc cag gag gag gtg gct gac tct atc act 144  
 Leu Pro Pro Ser Pro Arg Cys Gln Glu Glu Val Ala Asp Ser Ile Thr  
 35 40 45  
 cag ggc ctc acc gaa cca tgc cca gct ggg gcc cgc acc agc cac acc 192  
 Gln Gly Leu Thr Glu Pro Cys Pro Ala Gly Ala Arg Thr Ser His Thr  
 50 55 60  
 ttc cca gct gcg ctg ccc ccc 213  
 Phe Pro Ala Ala Leu Pro Pro  
 65

<210> 3201  
 <211> 369  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 43..369

<400> 3201  
 ctataagcag sgggatggag ttgaaatgcc tgctcatctt tt atg tgt ttc tct 54  
 Met Cys Phe Ser  
 1  
 tta ggt aca gga aag act tta ctg gcc aaa gct gtg gcc act gaa tgt 102  
 Leu Gly Thr Gly Lys Thr Leu Leu Ala Lys Ala Val Ala Thr Glu Cys  
 5 10 15 20  
 aaa aca acc ttc ttt aac att tct gca tcc acc att gtc agc aaa tgg 150  
 Lys Thr Thr Phe Phe Asn Ile Ser Ala Ser Thr Ile Val Ser Lys Trp  
 25 30 35  
 aga ggg gat tca gaa aaa ctc gtt cgg gtg tta ttt gag ctt gcc cgc 198  
 Arg Gly Asp Ser Glu Lys Leu Val Arg Val Leu Phe Glu Leu Ala Arg  
 40 45 50  
 tac cac gcc cca tcc acg atc ttc ctg gac gag ctg gag tcg gtr atg 246  
 Tyr His Ala Pro Ser Thr Ile Phe Leu Asp Glu Leu Glu Ser Val Met  
 55 60 65  
 agt cag aga ggc aca gct tct ggg gga gaa cat gaa gga agc ctg cgg 294  
 Ser Gln Arg Gly Thr Ala Ser Gly Gly Glu His Glu Gly Ser Leu Arg  
 70 75 80  
 atg aag aca gag tta ctg gtg cag atg gat ggg ctg gca cgc tca gaa 342  
 Met Lys Thr Glu Leu Leu Val Gln Met Asp Gly Leu Ala Arg Ser Glu  
 85 90 95 100

369

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<220>  
<221> CDS  
<222> 26..340
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<220>
<221> CDS
<222> 49..297
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<400> 3203
cctctacaca caggtcccaa acaggaaacg gttaacgact tctggaga atg gtc tgg      57
                                         Met Val Trp
                                         1
gag caa aag tct gcg acc atc gtc atg tta aca aac ttg aaa gaa agg      105
Glu Gln Lys Ser Ala Thr Ile Val Met Leu Thr Asn Leu Lys Glu Arg
      5              10              15

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aaa gag gtg agt tcc agc atc tgg ccc cgg tat cac ttc ctt tca gct	153
Lys Glu Val Ser Ser Ser Ile Trp Pro Arg Tyr His Phe Leu Ser Ala	
20 25 30 35	
gct gct gcc ggg ctg ggg atg ttc tta cca ctt cct ttt cct act tcc	201
Ala Ala Ala Gly Leu Gly Met Phe Leu Pro Leu Pro Phe Pro Thr Ser	
40 45 50	
ctc cct tcc tcc cac tat cac tgc aga aaa aaa ccc aaa cac atg cag	249
Leu Pro Ser Ser His Tyr His Cys Arg Lys Lys Pro Lys His Met Gln	
55 60 65	
tgg ctt aca gca ttt tct tca cga aac aaa tcc cct gtg tcc cct cgc	297
Trp Leu Thr Ala Phe Ser Ser Arg Asn Lys Ser Pro Val Ser Pro Arg	
70 75 80	

<210> 3204  
 <211> 360  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> 20..358

<400> 3204	
attatagcaa aggcatttg atg cag ctg gtt tat aaa aac cct aaa gaa tgt	52
Met Gln Leu Val Tyr Lys Asn Pro Lys Glu Cys	
1 5 10	
ttt ttg ata caa cca aag gaa aga aaa gag aat acc acc aag acc agg	100
Phe Leu Ile Gln Pro Lys Glu Arg Lys Glu Asn Thr Thr Lys Thr Arg	
15 20 25	
aaa aga aga aag aar att act gat gtt ctt gca aaa tca gaa cca aaa	148
Lys Arg Arg Lys Lys Ile Thr Asp Val Leu Ala Lys Ser Glu Pro Lys	
30 35 40	
cca ggg tta cct gaa gac cta cag aag ctg atg aag gac tat tat agc	196
Pro Gly Leu Pro Glu Asp Leu Gln Lys Leu Met Lys Asp Tyr Tyr Ser	
45 50 55	
agc aga cgc ttg gtg att gaa tta gaa gaa ctg aac ctg cca gac tcc	244
Ser Arg Arg Leu Val Ile Glu Leu Glu Glu Leu Asn Leu Pro Asp Ser	
60 65 70 75	
tgt ttc ctc aag gcc aat gat ttg act cac agt ctt tcc tca tac cta	292
Cys Phe Leu Lys Ala Asn Asp Leu Thr His Ser Leu Ser Ser Tyr Leu	
80 85 90	
aaa gaa att tgt cct aag tgg gta aaa ctt agg aag aac cac agt gag	340
Lys Glu Ile Cys Pro Lys Trp Val Lys Leu Arg Lys Asn His Ser Glu	
95 100 105	
aag aaa tcg gtc ctg atg ct	360
Lys Lys Ser Val Leu Met	
110	

<210> 3205  
 <211> 368  
 <212> DNA  
 <213> Homo sapiens

004220"666E7560